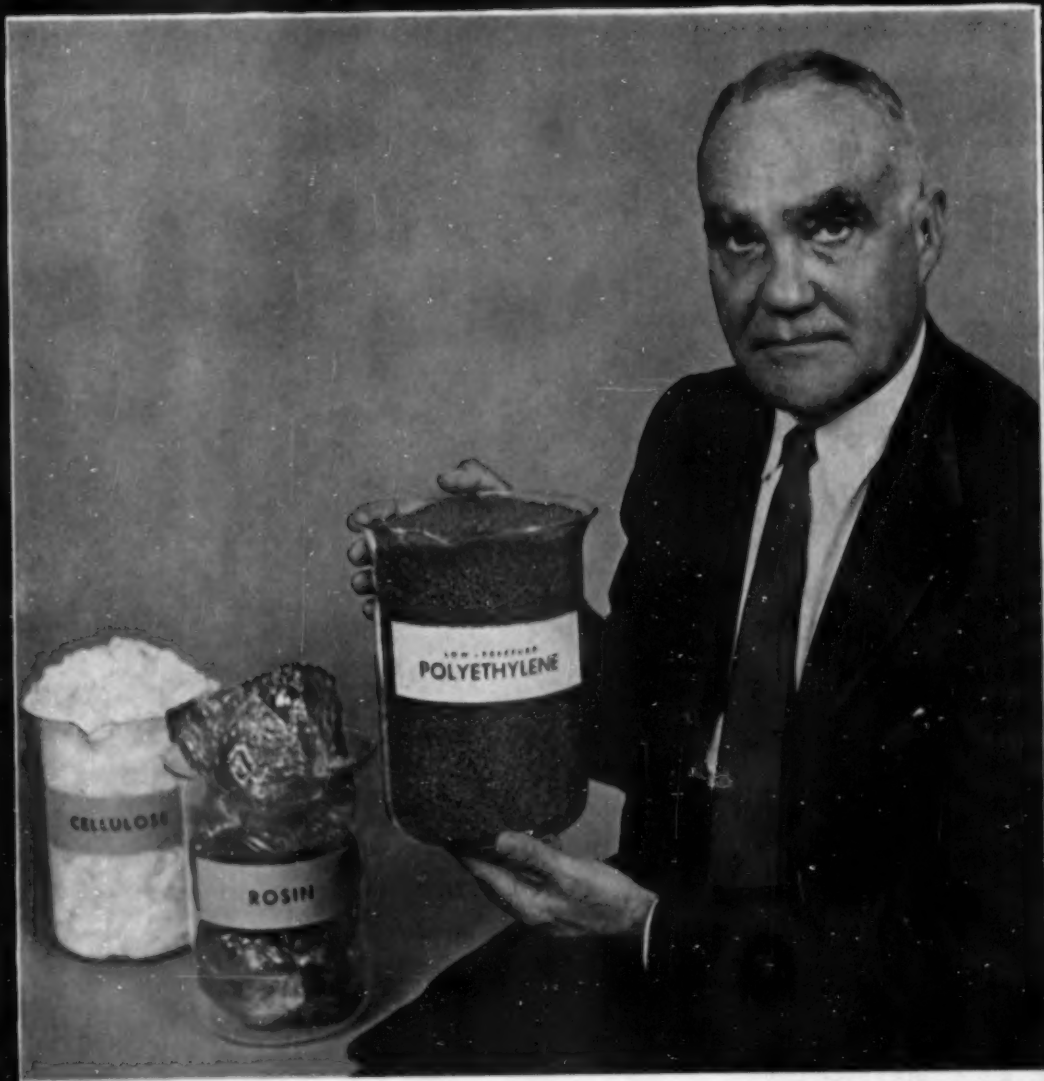


BUSINESS WEEK

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YEAR
AGO



Hercules' Forster: Moving into a new field, decisions are the hard part (page 120)

A MCGRAW-HILL PUBLICATION

OCT 15 1955

E B POWER
UNIVERSITY MICROFILMS
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ANN ARBOR MICH 48106



"National Accounting Machines save us \$75,000 a year ... return 100% of investment annually."

— SUN OIL COMPANY, "Pioneering in petroleum progress for 70 years"

"National Accounting Machines save us \$75,000 a year. Considering our total investment of \$75,050, we enjoy an annual return in savings of 100%.

"Our accounting is highly centralized. For example, while our operations cover both the United States and Canada, the control of our payroll is centered in Philadelphia. This one office organizes all the varying, widespread payroll information.

"We particularly like the original-print earnings record which provides analyzed

detail for each of our 17,000 employees. Also important to us is the fact that it requires no 'middle-man' accounting for various deductions, statements for tax reports, savings bond detail and control, stock purchase records and insurance controls.

"Personnel taken from our own ranks is easily trained to produce prompt, accurate accounting records which permit us to maintain an efficient operation at all times."

Donald P. Jones
Comptroller

In your business, too, National machines will pay for themselves with the money they save, then continue savings as annual profit. Your nearby National man will gladly show how much you can save—and why your operators will be happier. (See yellow pages of your phone book, or write to National, Dayton 9, Ohio.)

THE NATIONAL CASH REGISTER COMPANY, DAYTON 9, OHIO

977 OFFICES IN 94 COUNTRIES

National

ACCOUNTING MACHINES

CASH MACHINES • CASH REGISTERS

RESEARCH KEEPS

B.F. Goodrich

FIRST IN RUBBER



Picking up oyster shells with a vacuum cleaner

A typical example of B. F. Goodrich improvement in rubber

BENEATH that water, there's a vast deposit of oyster shells—wonderful for poultry when crushed. The shells are sucked out of the riverbed and into the dredge through the long metal pipe hanging from the boom. Only one trouble.

There has to be a length of flexible rubber hose to connect the rigid pipe to the dredge, so that the boom can be raised and lowered. But the sharp, destructive oyster shells tore the rubber to shreds in no time. There was constant expense for replacements.

A B. F. Goodrich man heard about this cost problem and sug-

gested a hose, lined with a special B. F. Goodrich rubber, developed for chute linings to stand the grinding of gravel and sand. This rubber is soft enough to *give* under the beating it gets yet so tough that it's even used in some places to carry broken glass. In many cases, it has outlasted the hardest steel 10 to 1.

The dredge operator tried B. F. Goodrich sand suction hose, and found that where other makes sometimes wore out in weeks, hose made by B. F. Goodrich lasted 8 to 10 months on the average. One in particular handled over 3 million yards of abrasive

shell and sand before it was replaced.

But that's not surprising. B. F. Goodrich hose products nearly always outlast other makes on tough jobs where severe operating conditions call for the best and most modern hose construction. Let your B. F. Goodrich distributor show you how this longer life, this ability to stand harder use, can reduce your hose costs per year, make other savings in operating and maintenance costs. *The B. F. Goodrich Company, Dept. M-496, Akron 18, Ohio.*

B.F. Goodrich
INDUSTRIAL PRODUCTS
DIVISION

In a little New Mexican village there's a whittler so expert
that people wait a year for his masterpieces—and pay plenty.
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was read by eight readers in every ten.

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in the country, according to independent surveys, and give advertisers
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to build sales all week long—PARADE has what it takes!



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"One of the
most marvelous
heating systems
ever seen"



statement by
Mr. H. G. Youngblood,
General Supt.,
Birmingham Transit Co.,
Birmingham, Ala.



The combination
radiant floor and
forced warm air
installation.

Warm air outlets are
along the outer walls
and in sidewalls of the
mechanic's service pits.

Janitrol GAS UNIT HEATERS

... selected for remodeled
bus garage 12 years' earlier
trouble-free experience.

With outside temperatures as low as 5°, and huge doors opening and closing continually, Janitrol Unit Heaters faithfully maintain comfortable conditions for the mechanics on the floor and in the pits. Also, the second floor offices are kept warm without extra heat supply.

This is another outstanding example of Janitrol's durable performance under rugged operating conditions.

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It's Free.



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ALSO MAKERS OF SURFACE INDUSTRIAL FURNACES
AND KATHABAR HUMIDITY CONDITIONING.

WHEN A MINUTE CAN MEAN A FORTUNE!

EXECUTIVE: *Is that a storm ahead of us?*

PILOT: *Yes, sir. Looks like a bit of weather.*

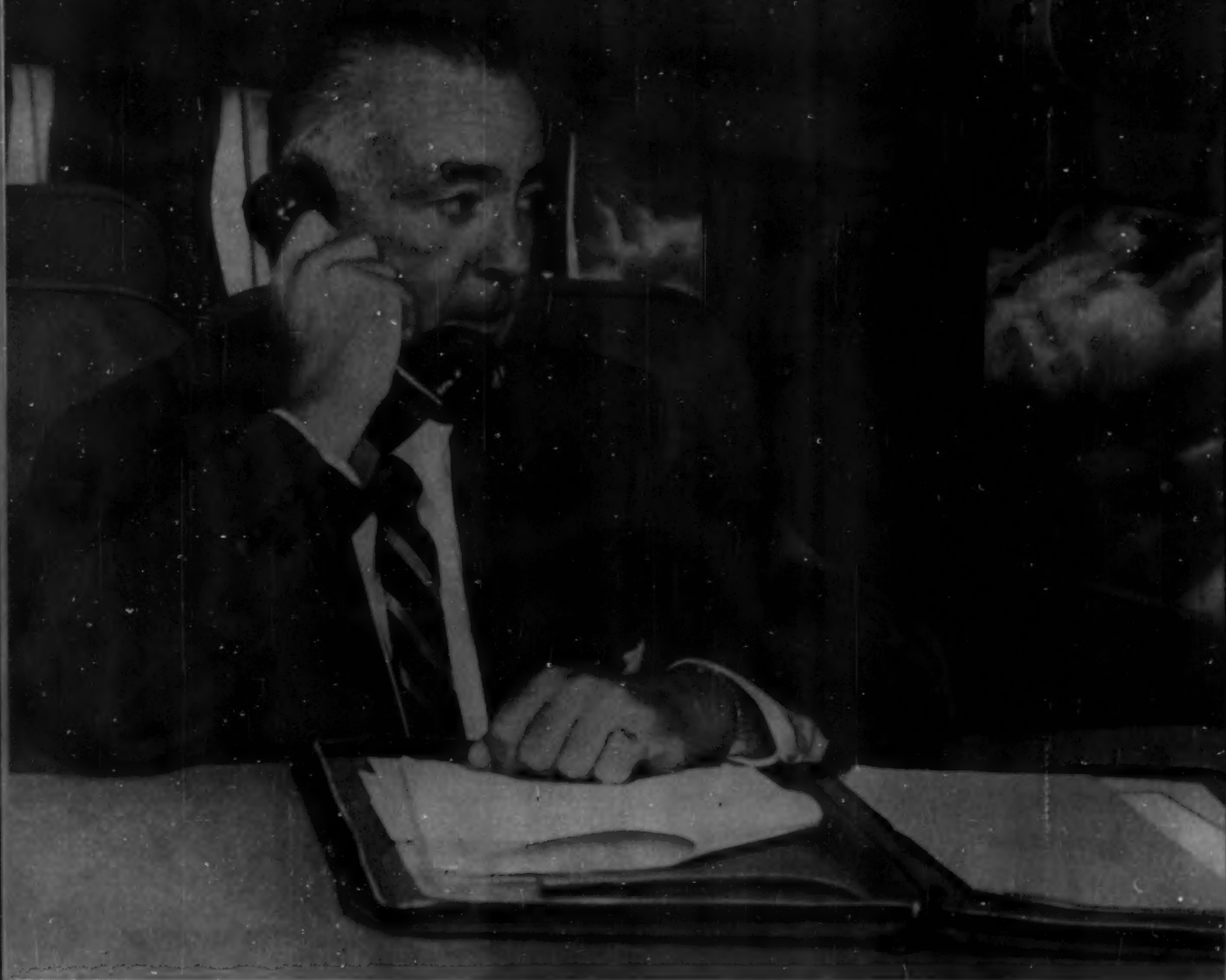
EXECUTIVE: *Does that mean we're going to get in late?*

PILOT: *I don't think so, sir. The radar shows we can make it without too much detouring. We should get in on time.*

EXECUTIVE: *Good! This is one meeting I can't afford to miss.*

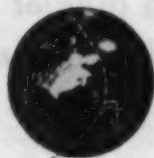
AT A TIME LIKE THIS—"When minutes are essential," an RCA Weather Radar (AVQ-10) in your executive airplane can mean the difference between a costly detour around storm areas and reaching your destination on time and maintaining your planned schedule.

Light in weight, low in cost, thoroughly proved, RCA's Weather Radar belongs in today's "standard-equipment" category. It presents your pilot with an easily-interpreted display of storm conditions as far as 150 miles ahead. By en-



abling your pilot to "see" into storm areas along your course, he can select non-turbulent paths between them, making long detours unnecessary. The AVQ-10 also provides for valuable ground-mapping information, clearly showing such landmarks as lakes, rivers, and coastlines.

In view of the great and growing demand for RCA's AVQ-10 Weather Radar by leading air lines and business aircraft operators, those interested are invited to write for further particulars in order to assure early installation.



Botted line shows how airplane passes between storm cells in its flight path, therefore saving time and increasing passenger comfort.



Minuten and miles are saved by being able to find a smooth path through turbulent areas.



AVQ-10 antenna in the nose of airplane scans forward area, enabling pilot to evaluate storm conditions far ahead.

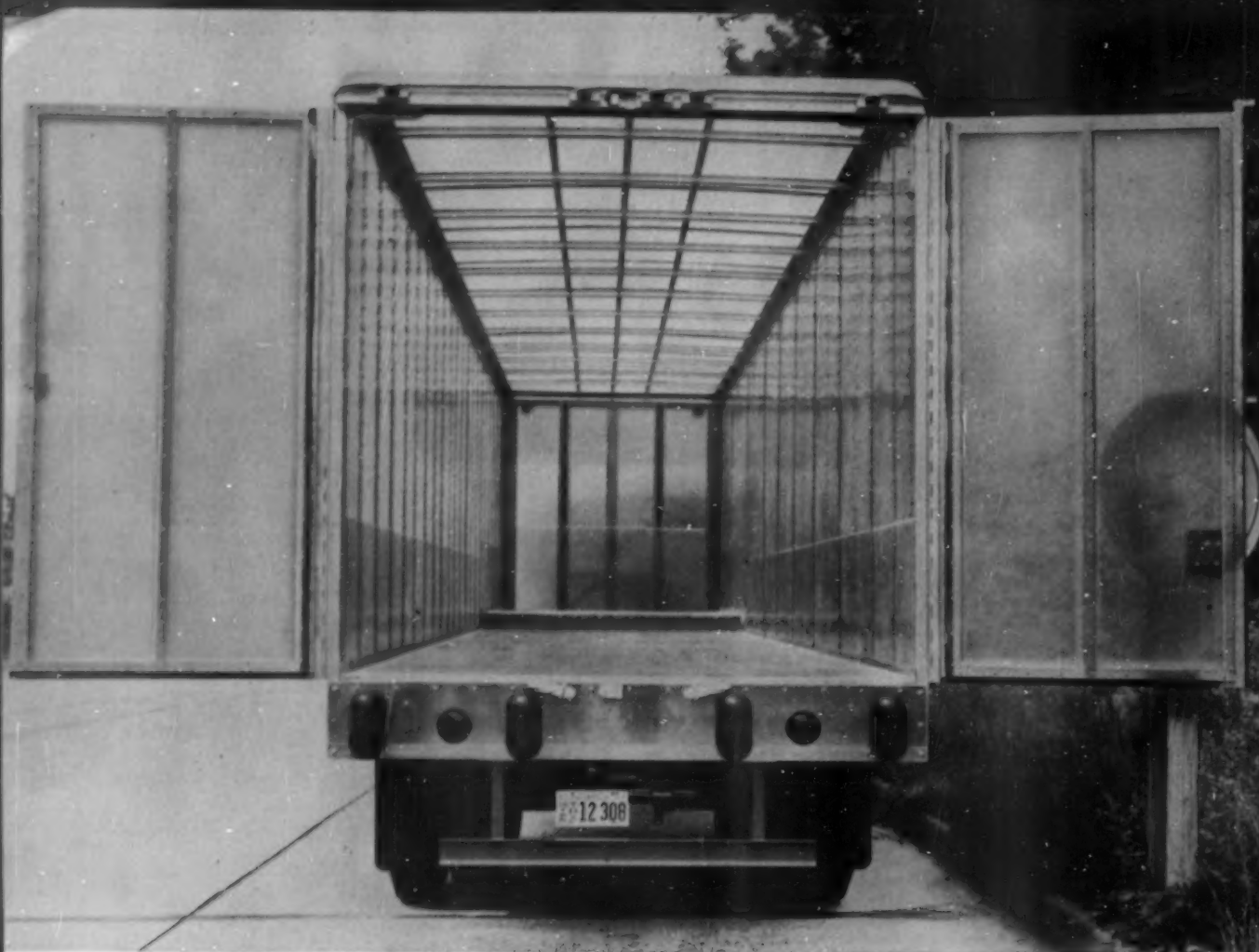


COMMERCIAL AVIATION SALES

RADIO CORPORATION of AMERICA

ENGINEERING PRODUCTS DIVISION

CAMDEN, N. J.

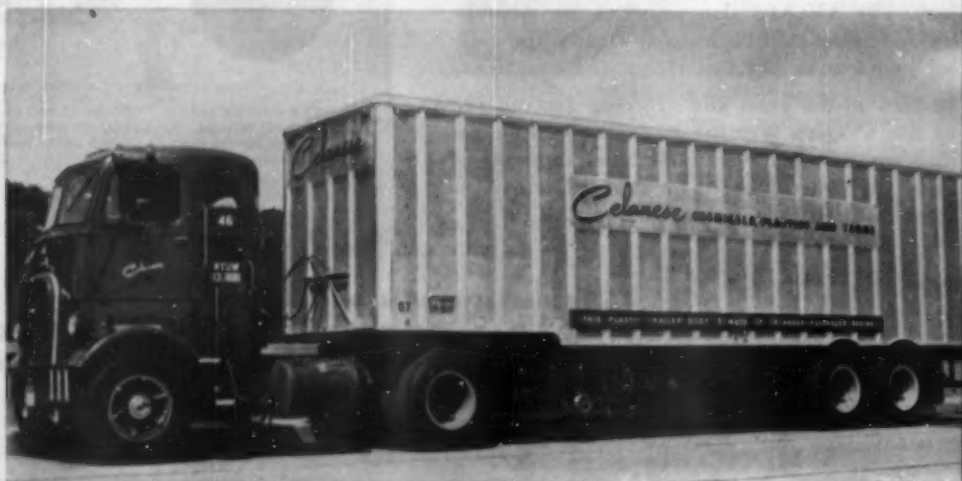


Translucent Truck...

highlights the trend to reinforced plastic body construction
shippers getting greater payloads, meeting road
regulations and cutting maintenance costs

(ABOVE) Interior view of Veenama-Wiegors trailer van, made of reinforced plastic panels, molded from Celanese® Morte® Resins. Approximately 3/32" thick, these panels made by Alkysynite Corp. of America, have the natural translucency of reinforced plastic, permitting easy reading of shipping labels during the day, and suggesting interesting advertising possibilities on night trips.

(RIGHT) Side view of trailer which weighs 8900 lbs., 35 feet long (several feet longer than standard trailers of the same weight), and has a loading space of 2128 cubic feet. Manufactured by Veenama-Wiegors Inc., Paterson, N. J.





180,000 MILES WITHOUT REPAIRS TO APRONS OR OUTER BODY

One of three milk tank trucks now in operation for the Dairyman's League Cooperative Association. Built by the Heil Company, these tanks have a capacity of 4000 gallons, yet weigh several thousand pounds less than old-style carriers with similar capac-

ity. The first of these trucks, in operation since October 1953, has traveled close to 180,000 miles without repairs to aprons or outer body. Heil is now building a 3000-gallon plastic trailer for DairyLea.

The trailer with the translucent body (opposite) is no one-time curiosity. It's a regularly scheduled, heavy duty truck that carries dry cargo thousands of miles every week. Certainly a truck that allows you to read shipping labels through its sides is different. But the difference that reinforced plastic construction makes is paying off for shippers in many other ways as well.

Look what a truck or trailer built of reinforced plastic can deliver: a body weight far lighter than conventional bodies—exchanging dead weight for greater payloads...resistance to weather, cold, heat, denting, moisture, stress, and vibration. Color may be permanently molded right into the material. Patch repairs can be made easily, quickly—on the road if necessary!

Celanese, producer of Marco* polyester resins, has pioneered in the development of reinforced plastic construction for trucks, boats, furniture, architectural panels, and many other products. If any of the plastic truck bodies displayed on these pages suggest profit possibilities for you, you can get more complete information from a Celanese technical representative.

Write: Celanese Corporation of America, Plastics Division, Dept. 229-J, 290 Ferry Street, Newark 5, N. J.



Insulated chemical carrier, built by Carl H. Beattie Co., Fall River, Mass., is two-ply. The reinforced plastic shell is sprayed with insulating material before outer jacket is installed. This tank trailer has a 3750-gallon capacity.



Sloping bottom tank truck designed by Brooks Cleveland, internationally known automotive designer, for shipping dairy products, chemicals, etc. Constructed of Celanese Marco Resins by Heil.



Dairy Farm Pick-Up Tanks built by Heil Company, Milwaukee, Wisconsin hold up to 2000 gallons of milk. Their exceptionally fine vapor seal against deteriorating moisture is the result of a bond of insulation material and reinforced plastic into a one-piece unit. There are no joints or internal bracing to transfer heat. Stainless steel liner meets sanitary requirements.

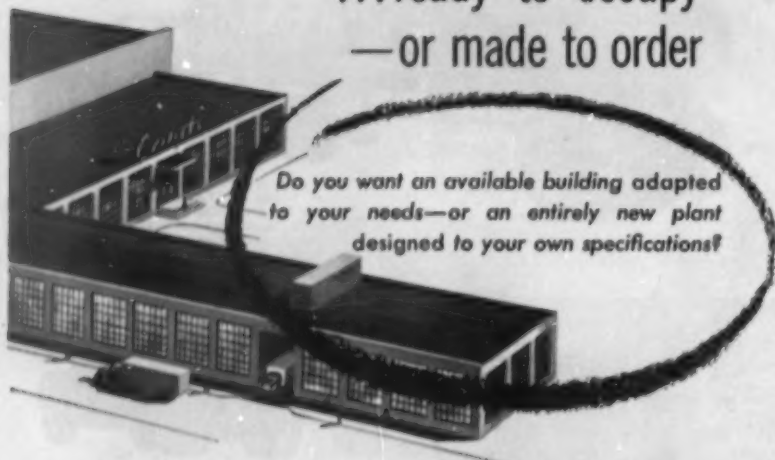
Celanese
PLASTICS and RESINS



On Heil trucks, color, lettering, and design are incorporated in plastic mold to become permanent part of outer surface. Heil pick-up trucks are being used by dairies and independent truckers all over the country.

EXACTLY The PLANT YOU WANT

...ready to occupy
—or made to order



Do you want an available building adapted
to your needs—or an entirely new plant
designed to your own specifications?

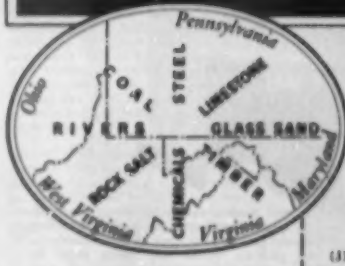
Look into offers being made by some of the progressive medium-sized communities we serve in Maryland, Pennsylvania, West Virginia, Ohio, and Virginia.

These communities want to assist you in adapting an existing building to low-cost production of *your* products—or in building a new plant to your specifications. New plant or modernization, they may be able to help finance the whole operation—and probably at less cost than you'd otherwise pay. Most community development organizations work on a non-profit basis.

What's more, you'll be dollars ahead in *reduced operating costs* after you move in. Many materials you need for successful manufacturing will be right in your own backyard. You save three ways: (1) reduced inventory (2) lower shipping charges (3) more productive labor. Ask us to prove it. Phone our Area Development Department—Whitehall 4-3740—or send in the coupon below.

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50 Broad Street, New York 4, N. Y.

Without obligation, please send me a hand-picked assortment of current Industrial Data sheets on available industrial buildings and sites in your service area.

Name and Title

Firm

Address

(1) City State Zip

READERS REPORT



The Commuters' Tower

Dear Sir:

[Above] is our answer to the letter from Reader Davino [BW—Sep. 17 '55, p. 12—Expensive Commuting] questioning the feasibility and costs of the Houston Monorail test pilot line. This is the first experimental monorail tower placed for testing in Houston.

Just be patient, Reader Davino.
MUREL GOODELL

PRESIDENT
MONORAIL, INC.
HOUSTON, TEX.

Pay to the Order Of

Dear Sir:

You had several things to say in Personal Business about the importance of writing and endorsing checks properly [BW—Sep. 24 '55, p. 184].

We recently had an interesting experience, which would lead me to believe that you can do almost anything to a check and get away with it, in these times.

We received a check from an insurance company, payable to one of our insureds, for reimbursement of a loss. Having had some previous experience with this customer, we wanted to be sure that the people who did the work and repaired the loss, were paid their money. There happened to be three parties involved, so we turned the check over and endorsed it on the back as follows, "Pay to the order of..." and left a couple of lines for the insured to sign.

For some reason or other, he took exception to this and refused to endorse the check, and even went so far as to write direct to the insurance company, but they stand



Let's talk about *Maximum Savings*

and the New Remington Rand **ROTO-KARD**

When you talk about *maximum* motion-economy in rotary-drum filing operations ...about *maximum* savings in space, time, money and labor, you'll be talking about the new, Remington Rand **ROTO-KARD**!

You'll be talking about the most compact and most efficient electrically or manually operated rotary drum file available: up to 6,000 records in only 3.6 square feet of space ... mechanized operation for quicker reference and more rapid posting...removable tray segments for simplified desk use ... and *more* ... much, much *more*!

Get complete information about **ROTO-KARD**, the new unit that's ideal for maintaining Cost, Credit, Inventory, Ledger, Maintenance, Personnel, Pricing, Production, or Purchase record systems. Write today for **FREE** booklet KD770 to Room 2007, 315 Fourth Ave., N.Y. 10.

Remington Rand
DIVISION OF SPERRY RAND CORPORATION



Dow Corning

Silicone News Letter

Better Products, Bigger Markets... with Silicones

Manufacturers of products for home, industry and military use are finding new ways to improve them... increase their share of present markets and open new ones... through using Dow

Corning Silicones. Here are a few typical examples... mail coupon for more information on how to improve your products and increase your sales with Dow Corning Silicones.



Silicone RUBBER gives housewives "cooking without looking". Heart of Westinghouse "Electronic Eye" heat control system for range surface units is embedded in Silastic® brand silicone rubber... highly resistant to boiling water, oil, grease, coffee, syrup... stays elastic at 500 F. "Eye" is also protected by a diaphragm of Silastic... and is connected to exterior wiring by Silastic insulated cable.

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No. 1



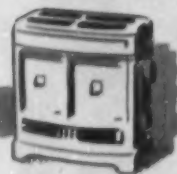
Silicone RESIN improves resistance of resistors... gives better protection against moisture. Tru-Ohm Division of Model Engineering improves efficiency of wire-wound resistors by sealing casings with silicone resin base cement. Has proved to give greater resistance to moisture than conventional silicate-type cement previously used.

No. 2



Silicone GREASE improves operation of surveying instruments... retains full effectiveness in desert heat or arctic cold... permanently lubricates ball bearings in surveyor transits designed by Brunson Instrument Co. The silicone lubricant, Dow Corning 33 Grease, keeps bearings 100% operational from -80 F to 450 F... has contributed to Brunson's growth to second largest producer in the world.

No. 3



Silicone PAINT keeps home appliances new looking longer. Exposed to high temperatures, light-colored organic finishes quickly darken and deteriorate... so Duo-Therm Co. uses heat resistant silicone-based paints on space heaters finished to match current decorator color trends. Unaffected by 500 hours at 450 F. Also non-chalking, non-checking, non-yellowing.

No. 4



Silicone INSULATION adds life to lift trucks... gives motors more muscles... increases power per pound ratio... outlasts organic insulations 10 to 1. Automatic Transportation Co. greatly improved lift truck reliability by building generators and motors with silicone insulation. Exceptionally heat resistant, silicone insulation provides extra protection against heavy overloads and moisture.

No. 5

It's good business to use Dow Corning Silicones... they add sales appeal... open new markets. Mail coupon today!



Dow Corning Corporation, Dept. 2210, Midland, Michigan

Please send me: More information on: 1 2 3 4 5

- ☐ "What's a Silicone", 32 page illustrated booklet
☐ 1955 reference guide to silicone products

Name _____

Company _____

Address _____

ATLANTA CHICAGO CLEVELAND DALLAS DETROIT LOS ANGELES NEW YORK WASHINGTON, D.C.
CANADA: DOW CORNING SILICONES LTD., TORONTO GREAT BRITAIN: DOW CORNING LTD., LONDON FRANCE: ST. ODEAN, PARIS

behind us and refused to re-issue the check. They informed their bank that there was some controversy about this particular check, and to be sure that it was properly endorsed when it was received, and before they paid it.

We heard nothing more about the case for several weeks... Finally, we became worried and wrote to the insurance company to be [sure] the check hadn't been paid, and they found that the insured had merely taken a pen and marked through everything we had typed on the back of this check, endorsed it, deposited it in the bank, and it had been paid...

STEWART STANLEY

PRESIDENT

THE INSURANCE EXCHANGE, INC.
JOPLIN, MO.

The Works

Dear Sir:

Your article Airborne Detectors Hunt Ore in Canada [BW—Sep. 3 '55,p64] states that Seromagnetic Surveys Ltd. of Toronto claims to be the only contracting firm in the world which offers simultaneous airborne magnetic, electromagnetic, and radioactive service.

This is a misstatement of fact, since Lundberg Explorations Ltd. of Toronto has carried out such surveys in North and South America, Europe, and Africa for several years.

HANS LUNDBERG

PRESIDENT

LUNDBERG EXPLORATIONS LTD.
TORONTO, ONT., CANADA

Professional Amateurs

Dear Sir:

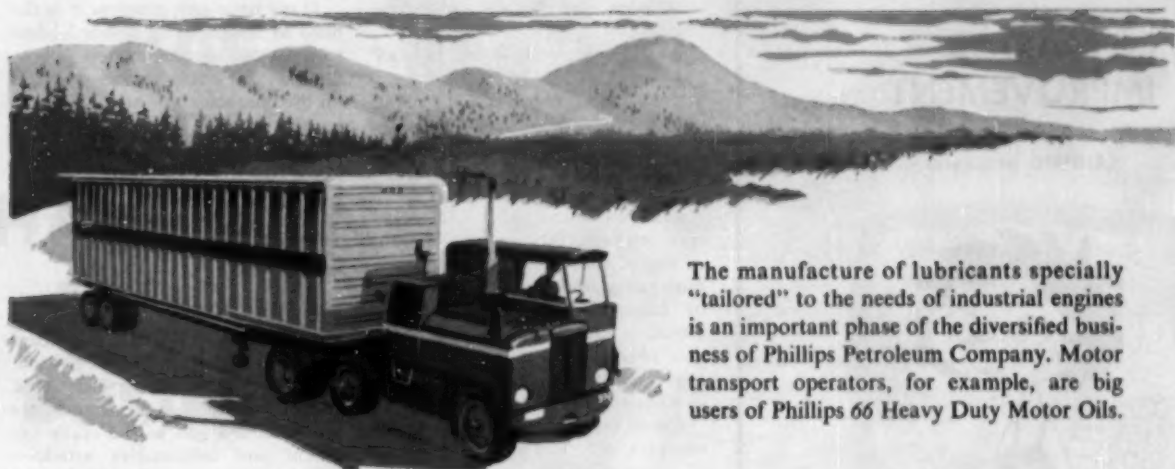
I must take exception to your article on credit unions [BW—Sep. 24'55,p60—Credit Unions: Hazards of Growth].

The analogy you draw between a commercial bank and a credit union just doesn't exist. Each performs an important, though far different, part in our economy.

Then, too, your statement that all credit unions are run by amateurs simply doesn't square with the facts in our case. And I'm sure that this is true in a great many well-run credit unions.

For example, on our board of directors are four Masters degrees, two C.P.A. certificates and one Bachelors degree in accounting. The manager of our credit department, who extends some \$25-million in credit annually, is among them.

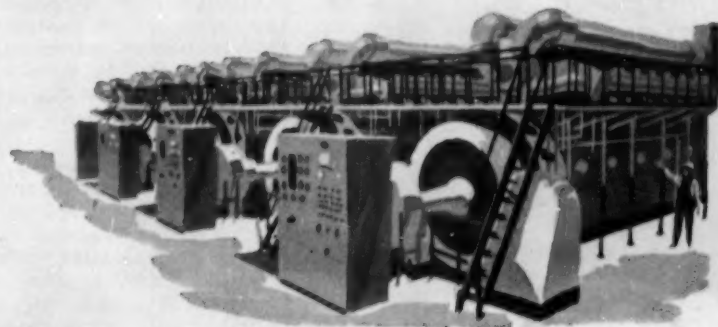
If these people are amateurs,



The manufacture of lubricants specially "tailored" to the needs of industrial engines is an important phase of the diversified business of Phillips Petroleum Company. Motor transport operators, for example, are big users of Phillips 66 Heavy Duty Motor Oils.

Oil for the Engines of Commerce

U. S. A.'s most powerful Cooper-Bessemer installation is Phillips lubricated. These engines generate 105,000 kw. at the aluminum reduction plant of Reynolds Metals Company near Corpus Christi, Texas.



Increasing mechanization on the farm provides an ever-growing market for various Phillips 66 Motor Oils. Farmers in Phillips marketing area own more than 3,500,000 tractors, plus trucks and other machinery, as well as passenger cars.

In today's booming construction industry Phillips 66 Heavy Duty Motor Oils and Greases help get the work done efficiently, economically, and profitably. Continuing research keeps Phillips in the forefront as a manufacturer of "Oil for the Engines of Commerce."



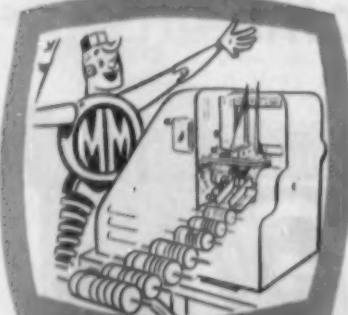
PHILLIPS PETROLEUM COMPANY

Bartlesville, Oklahoma

We Put the Power of Petroleum at America's Service



making a
MARKED
IMPROVEMENT
in COLOR
CODING products



Industry's color-coding needs range from simultaneous application of up to six bands on wire lead electrical components to color banding drill chucks in the tool business. Meeting these needs are Markem machines (like the 69A shown), type and ink—which do the job faster, better and at lower cost than tedious hand methods ever could. When size, shape or material of your product, part or package poses a marking problem, get the benefits of Markem's 44 years of experience. Write or call Markem Machine Co., Keene 33, New Hampshire.



how does one become a professional?

R. A. EGGERT

TREASURER
ALDENS, INC., EMPLOYES FEDERAL
CREDIT UNION
CHICAGO, ILL.

Dear Sir:

I have read your credit union story with interest and appreciation. A few of the . . . observations are misleading, especially if taken out of context, but on balance the article is highly informative. Further observations as to basic concepts ought to be made, however, in all fairness:

Credit unions are primarily thrift organizations. The money they lend is almost entirely accumulated savings of members. . . . Also, credit unions are primarily thrifty-minded in their loan philosophy. They consider thrift to be not the accumulation of money, but the wise use of resources, which includes credit. The credit union's purpose is not to make loans to members, but to help members get the most from their income by the wise use of their earnings and their credit. . . . As credit unions grow in size they do, as you point out, face special problems. On the whole, with exceptions it's true, the movement has faced up to the problems. . . .

Actually it is not fair to call the managers and staffs of these large credit unions amateurs. Almost without exception they are well trained, capable and dedicated employees, doing an entirely professional job. . . . The treasurer-managers of our smaller credit unions may work for little salary on a part-time basis, but even they soon become quite professional in their practices. . . .

On the other hand, there is the distinction between direction and management. Our directors are indeed amateurs. They are people selected by their peers. They serve without pay to see that their credit unions render the service they were organized to render. . . .

The implication that credit unions grant loans carelessly and that a new member can plunk down \$5 and get a loan for \$405 without interview or investigation is contrary to fact, with exceedingly few exceptions. The transaction would, it is true, be completed as quickly as possible, perhaps in a few minutes or an hour, but not until the credit union was assured, by personal knowledge or adequate investigation, that the applicant was responsible and the purpose of the loan beneficial. . . .

If we have any problem it is the need to inspire more of our leaders to have confidence in their fellowmen. . . . It's good business to bet on the character . . . of the average man.

HOWARD C. CUSTER

CREDIT UNION NATIONAL ASSN., INC.
MADISON, WIS.

Gas, Not Oil Pools

Dear Sir:

For the benefit of those readers . . . whose memories do not go back four years to when BUSINESS WEEK first "discovered" underground storage of natural gas with a really excellent and informative article—Warehousing Gas: Put It In the Ground [BW—Sep. 1 '51, p70] please permit me to correct some of the . . . errors of fact in Gas: On Call Near the Market [BW—Sep. 3 '55, p102].

First, natural gas is not stored in Pennsylvania's "old oil pools." All 55 underground gas storage pools in Pennsylvania . . . are porous pockets of sub-surface sandstone from which native natural gas deposits have been extracted over the past 70-odd years. In the Appalachian area, unlike many Southwestern occurrences, gas and oil are usually found in separate strata. . . .

Secondly, Hebron is neither "an oil pool" nor "old" one requiring a long, difficult search for old records, "lost" wells, etc. The "discovery" well in Hebron was drilled in November 1931. . . . The Hebron pocket, over some 20 years yielded 40-plus billion cu. ft. of native natural gas before it was decided to "re-stock" the sand as a storage pool.

Thirdly, your article says that only 67-million cu. ft. of natural gas went into storage last year. Published American Gas Assn. statistics show that maximum volume of gas in underground storage in 1954 was 1,011.3-billion cu. ft. The comparable figure for 1953 is 889.1-billion cu. ft., thus indicating a storage gain last year of 122.2-billion cu. ft. . . .

GEORGE DOYING

MANAGER

PA. NATURAL GAS MEN'S ASSN.
PITTSBURGH, PA.

• Reader Doying is right on both factual points. The underground storage fields in Pennsylvania are depleted gas fields. Also the amount of gas going into storage in 1954 should have been 432-billion cu. ft. Apparently we had oil on the brain.

THIS COULD HAVE BEEN YOUR BUSINESS



It's been said that "scare type advertising" makes more enemies than it does friends. But, this message is not intended to incite fear.

It's merely our way of reminding you that tomorrow can be too late if fire breaks out today.

No sensible property owner shuts his eyes on the ever-present possibilities of fire. And, no sensible business executive can close his mind to the benefits of fire protection—particularly when facts laid before him show that this protection actually costs him nothing—and in all probability will save him money.

Get full particulars on ENGINEERED "Automatic" Sprinkler PROTECTION.

Free literature is yours for the asking.

You can't stop fires from starting, but you can control them and minimize danger with ENGINEERED "Automatic" Sprinkler PROTECTION.

"Automatic" Sprinkler

CORPORATION OF AMERICA

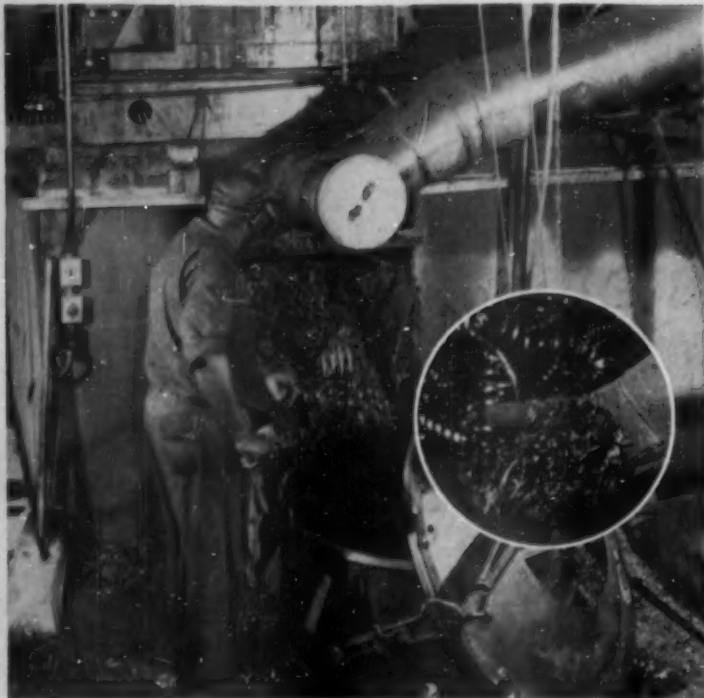
YOUNGSTOWN, OHIO

Offices in Principal Cities of North and South America

What's new in MECHANIZATION?



Chain reaction: 50% longer life. Pulp mills like this Jeffrey PW Combination Chain because it has more wearing surface . . . gives up to 50% longer life where abrasive material is encountered. What's new in Jeffrey chain to help cut your costs? Call us and we'll help you find out!



A picture of cost reduction. The pile of small metal particles in the worker's hand shows what happens when metal turnings are put through a Jeffrey Crusher. Results at this plant: (1) Big savings in coolant oil because it's practical to spin crushed metal to salvage oil. (2) Better price for scrap . . . 3 times as much in a truck! This Jeffrey Metal Turnings Crusher is at Thompson Products, Inc., Tapco Plant, Euclid, Ohio.



Piles up savings! The problem here was to store and reclaim huge quantities of phosphate rock. Jeffrey engineers solved it with the portable stacker and conveying system shown . . . at a saving of about one-third the cost of an overhead trestle conveyor, usually used for this purpose. Courtesy: American Cyanamid Company.



Now . . . a packaged unit. Did you know you can buy standard Jeffrey spiral conveyors and bucket elevators to match your job exactly? They are assembled in our plant to assure perfect fit and alignment and all components are match-marked for easy erection.

WE CAN HELP YOU with efficient equipment for Materials Handling • Chain Applications • Materials Reduction • Processing • Sanitation • Mining . . . and with a contract engineering-manufacturing service for your products.

Jeffrey guarantees your enthusiasm!



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The Jeffrey Manufacturing Company, Columbus 16, Ohio

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*now handles
practically every job
in your plant*



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Here's why:

- It has a higher melting point than most special "high temperature greases".
- It can be pumped at temperatures as low as -20° F.
- It lubricates completely under conditions of moisture and water.
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Let your local Pure Oil representative tell you how improved POCO HT can cut lubrication costs for you. This may be the only grease you need in your entire plant. Why not call now and find out?

Now it's easier than ever to

"Simplify and Save"

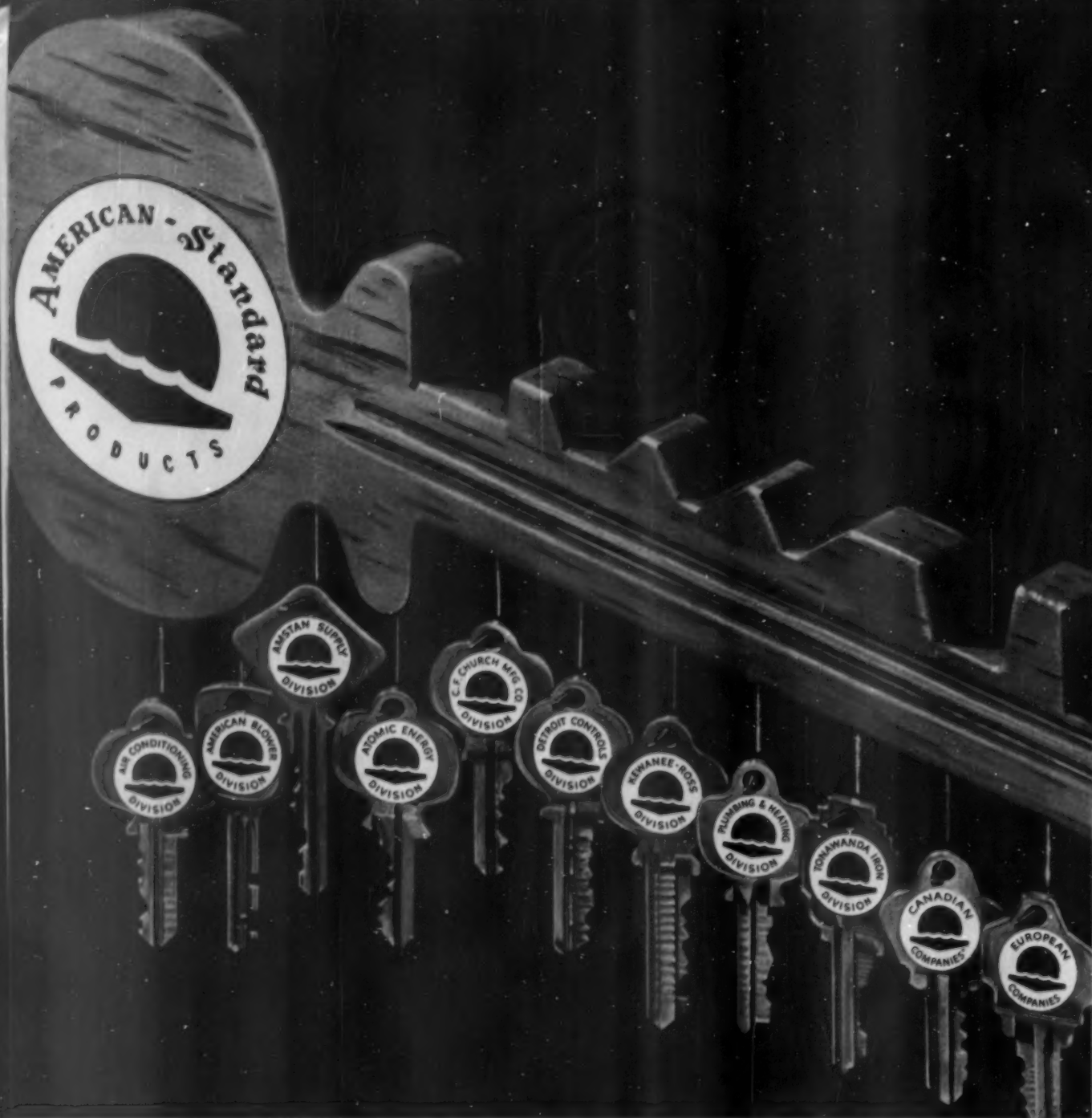
With improved POCO HT headlining Pure's Multi-Purpose lubricants, you can now save more than ever with Pure's "Simplify and Save" Plan. Find out how it will work in your plant. Write for full literature. The Pure Oil Co., 35 E. Wacker Drive, Chicago 1, Ill.



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Sales offices located in more than 500 cities in Pure's marketing area.

PURE MULTI-PURPOSE LUBRICANTS



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Eleven keys . . . each a key to **AMERICAN-Standard** quality

Every one of these keys carries the proud trademark of one of the divisions or companies that make up the American-Standard family.

Products made by these divisions contribute to the comfort and efficiency of factories, schools, hospitals, hotels, ships, planes, trains, and homes. These products are just as varied as

the places in which they are installed. They include boilers a couple of stories high and boilers small enough to slide under a man's arm . . . controls for household appliances and diesel locomotives . . . blowers and fans to circulate air through a luxury liner or draw fumes out of the family kitchen . . . atomic-reactor-system components . . .

heating and air conditioning for skyscrapers or cottages . . . beautiful bathroom fixtures and fittings for a large hotel or a small home.

Next time you need a product to do an important job, for home or industry, call one of the divisions or companies that make up the big family of **AMERICAN-Standard**.

American Radiator & Standard Sanitary Corporation

BUSINESS OUTLOOK

BUSINESS WEEK

OCT. 15, 1955



Money is just about as tight as it is likely to get.

The threat of inflation has faded. There's no longer any need to restrain the boom; uncertainty is doing that (page 25).

Credit curbs will ease if business falters.

If the squeaking wheel gets the grease, then an easier credit policy first will be applied to housing. For it's from the mortgage market that most complaints of tight money have been coming.

You saw the rates on short-term money rise again this week. Commercial paper was marked up, and the Treasury had to pay just over 2¼% interest on its latest bill issue (highest cost in over two years).

But if this isn't the peak, it's mighty close to it.

The Federal Reserve has been buying government securities for a fortnight. The money thus unlocked gives bankers a little more leeway. (Earlier, the Fed had sold from its government portfolio in order to keep the banks on short tether.)

There's no reversal of Federal Reserve policy yet, much as the switch from sales to purchases of governments may look like one.

Securities are being bought now to help us over the characteristic autumn hump in credit needs. This shift, though, could pave the way for a policy change if it should develop that business needs the stimulant.



Residential construction, up to now, has been one of the most robust segments of the economy. From June through September, value of work put in place was almost \$1½-billion a month, far ahead even of the rapidly rising figures a year ago.

For the year to date, home building has totaled \$12-billion.

These extraordinary records for home building, however, are past history to the men who do the work as well as to everyone who has to gauge what residential construction will mean to future activity.

Jobs now being completed were financed long ago. The current worry is about getting the money for new ones.

That's why officers of the National Assn. of Home Builders and the Savings & Loan League had their heads together in Washington last week.

Their topic: "Developing a more stable flow of mortgage credit."

Home building now appears to be heading into a steeper-than-usual autumn decline. Straws in the wind:

- The number of dwelling units started in September, as figured by government statisticians, was 113,000. That's down slightly from 1954.
- Contract awards (homes yet to be started) in September, as computed by F. W. Dodge Corp., totaled only \$733-million. This was 6% below a year ago—and the first drop from year-earlier levels since late 1953.

Dodge attributes this directly to "tightened housing credit."

BUSINESS OUTLOOK (Continued)

BUSINESS WEEK

OCT. 15, 1955

Housing is so important to business generally that something will be done about it. Yet the background facts will be heatedly debated:

- Not a few observers hold that tougher mortgage terms (down payments and monthly charges) are more responsible for less building than tight money—and that the new terms are bound to mean sounder mortgages.

- And demand for new homes may be shrinking. Vacancies are more numerous (though still low), rents aren't rising as fast as they were, and there are a few localities where overbuilding is evident.

Tight mortgage money would, of course, spotlight any weaknesses.

—•—

Productionwise and employmentwise, the boom is rumbling along as strongly as ever (whatever it may have lost in the way of confidence).

In fact, the labor market is tight. It's tighter even than September's 2.1-million jobless (low for the year) might indicate.

Here's evidence of the scarcity of qualified job-seekers:

- More overtime in factories. Manufacturing workers last month were clocking 41 hours a week, highest since March of 1953.

- Shrinking labor pools. The jobless are fewer in fully 130 out of the 145 major industrial employment centers. Exceptions are mainly auto centers (affected by the changeover to new models), resort areas (seasonal), and flood-ravaged New England.

Women now make up about 45% of the job hunters—not because their numbers have swelled but due to available males being grabbed off. The jobless women number about a million—the same as early in the year when they made up a more typical 33% of the unemployed.

Of course, it may be that qualified women have found jobs, too. The difference could be an influx of those who don't ordinarily work; this is altogether characteristic of unusually good employment conditions.

—•—

Rising employment, longer hours, and fatter pay envelopes have helped consumers get together \$11-billion more to spend at retail.

That's the gain for all types of stores so far this year.

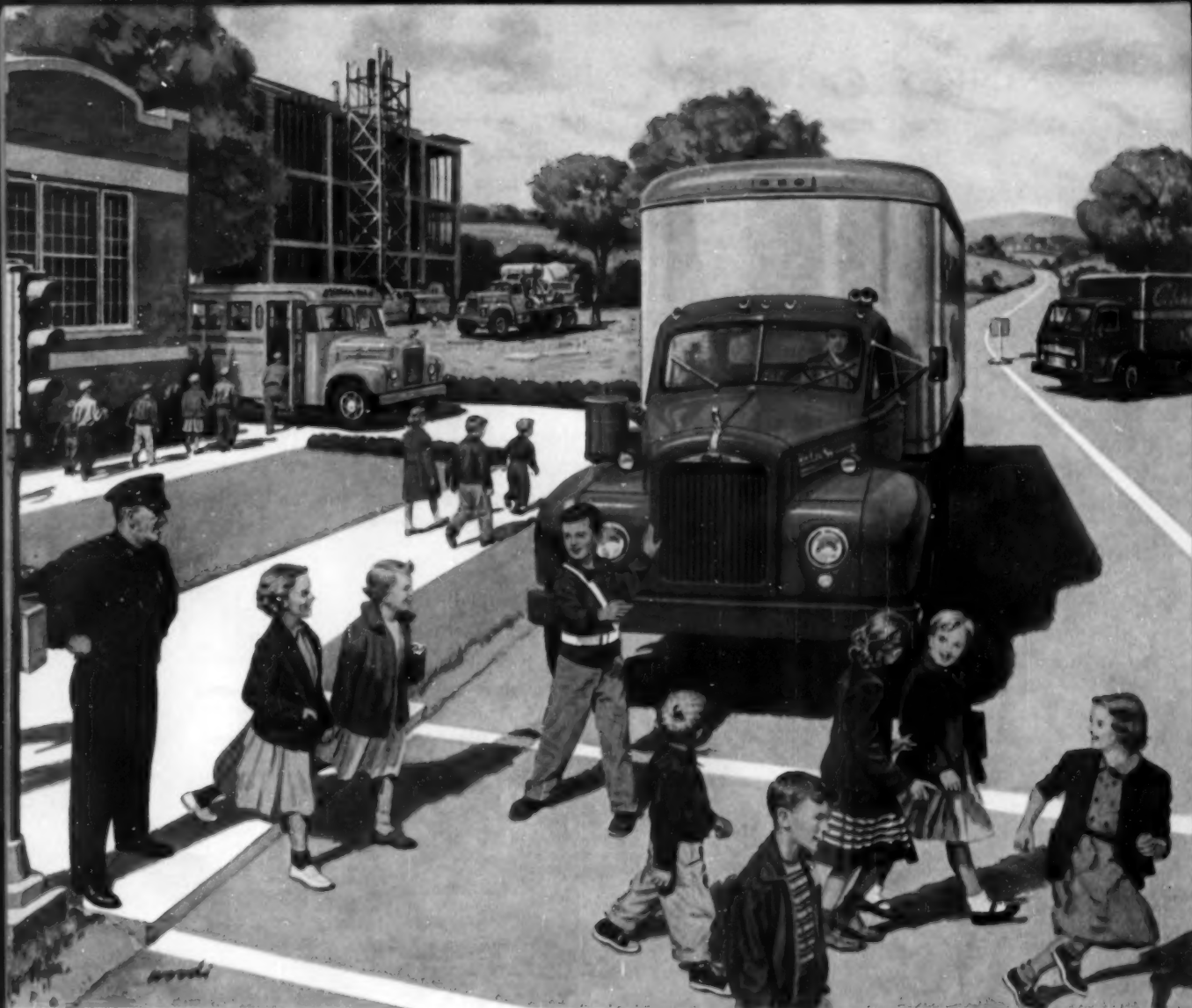
A bulging \$15.9-billion in September helped not a little to push the nine months' figure up to \$135-billion.

Record summer sales gave a hefty boost to the margin of gain over last year. The early part of the year had shown up very respectably, up 8½%. But the summer ran ahead by 10½%.

This summer's monthly average topped \$15½-billion; in 1954, the same months ran along at \$14-billion—and made everyone happy.

Autos and automotive products, to the surprise of no one, have contributed \$5-billion to this year's \$11-billion rise in retail sales.

But there are other strong showings: food, up \$1½-billion (with prices averaging, if anything, a little lower), and general merchandise ahead by \$1-billion.



PICKED FOR THE IMPORTANT JOBS

This alert young Safety Patrolman is proud of being chosen to do an important job.

And so is Mack. While America makes many good trucks, you'll notice that Macks generally get the call when important cargoes must be moved.

That's because operators know they can always count on Macks to take the toughest loads and roads in stride. To make sure that every Mack lives up to this reputation, each is designed and constructed with the toughest service constantly in mind. To make doubly sure, we build our own frames, cabs, engines, transmissions, axles—more components than any other truck manufacturer.

The Mack way of building pays off twice . . . in maximum earning capacity and low operating and maintenance costs. Macks stay on the road, and they stay on schedule.

If you move anything from one place to another . . . people or ready-mixed concrete, oil-well rigs or department store packages, rock fill for a new super highway or tomorrow morning's milk . . . you'll get the job done faster and at lower cost with a Mack. It certainly pays to keep in mind . . .



*Macks are first choice
for the important jobs.*

NOW - THREE OUT OF EVERY NINE



PRODUCTS WRAPPED IN CELLOPHANE



ARE PACKAGED IN AVISCO CELLOPHANE



GROW WITH AVISCO CELLOPHANE

Film Division, American Viscose Corporation, 1617 Pennsylvania Boulevard, Philadelphia 3

*Trademark of American Viscose Corporation

FIGURES OF THE WEEK



Business Week Index (above) [†]140.2 [†]141.8 138.6 121.3 91.6

PRODUCTION

	5 Latest Week	Preceding Week	Month Ago	Year Ago	1946 Average
Steel ingot production (thousands of tons).....	2,350	†2,334	2,309	1,735	1,281
Production of automobiles and trucks.....	102,298	†144,534	98,546	81,610	62,880
Engineering const. awards (Eng. News-Rec. 4-week daily av. in thousands).....	\$62,599	\$64,073	\$58,806	\$42,794	\$17,083
Electric power output (millions of kilowatt-hours).....	10,639	10,627	10,155	9,193	4,238
Crude oil and condensate production (daily av., thousands of bbls.).....	††6,691	6,661	6,655	6,152	4,751
Bituminous coal production (daily average, thousands of tons).....	1,597	†1,595	1,587	1,353	1,745
Paperboard production (tons).....	289,693	292,654	218,751	247,919	167,269

TRADE

Carloadings: manufactures, misc., and L.e.I. (daily av., thousands of cars).....	78	77	75	71	82
Carloadings: raw materials (daily av., thousands of cars).....	59	59	58	50	53
Department store sales (change from same week of preceding year).....	+15%	+3%	+11%	-2%	+30%
Business failures (Dun & Bradstreet, number).....	207	186	205	230	22

PRICES

Spot commodities, daily index (Moody's Dec. 31, 1931 = 100).....	405.6	407.4	410.2	403.7	311.9
Industrial raw materials, daily index (U. S. Dept. of Labor BLS, 1947-49 = 100).....	97.3	98.6	98.1	89.3	††73.2
Foodstuffs, daily index (U. S. Dept. of Labor BLS, 1947-49 = 100).....	79.2	79.1	78.8	92.8	††75.4
Print cloth (spot and nearby, yd.).....	19.5e	19.5e	18.9e	19.1e	17.5e
Finished steel, index (U. S. Dept. of Labor BLS, 1947-49 = 100).....	154.5	153.9	153.9	144.7	††76.4
Scrap steel composite (Iron Age, ton).....	\$44.83	\$44.83	\$44.17	\$33.00	\$20.27
Copper (electrolytic, Connecticut Valley, E&MJ, lb.).....	43.363e	43.970e	44.560e	30.000e	14.045e
Wheat (No. 2, hard and dark hard winter, Kansas City, bu.).....	\$2.20	\$2.20	\$2.11	\$2.39	\$1.97
Cotton, daily price (middling, 14 designated markets, lb.).....	32.58e	32.51e	33.25e	34.36e	**30.56e
Wool tops (Boston, lb.).....	\$1.72	\$1.72	\$1.75	\$2.23	\$1.51

FINANCE

90 stocks, price index (Standard & Poor's).....	330.1	343.0	352.2	257.8	135.7
Medium grade corporate bond yield (Baa issues, Moody's).....	3.59%	3.59%	3.59%	3.47%	3.05%
Prime commercial paper, 4-to-6 months, N. Y. City (prevailing rate).....	2 1/8%	2 1/8%	2 1/8%	1 1/2-1 1/8%	1-1%

BANKING (Millions of dollars)

Demand deposits adjusted, reporting member banks.....	55,851	56,306	55,555	54,276	††45,820
Total loans and investments, reporting member banks.....	84,637	84,503	84,150	84,803	††71,916
Commercial and agricultural loans, reporting member banks.....	24,989	24,670	24,080	21,102	††9,299
U. S. gov't guaranteed obligations held, reporting member banks.....	30,291	30,347	30,791	37,614	††49,879
Total federal reserve credit outstanding.....	25,525	25,478	25,401	25,338	23,883

MONTHLY FIGURES OF THE WEEK

		Latest Month	Preceding Month	Year Ago	1946 Average
Employment (in millions).....	September	64.7	65.5	62.1	55.2
Unemployment (in millions).....	September	2.1	2.2	3.1	2.3
Average weekly earnings in manufacturing.....	September	\$77.90	\$76.33	\$71.86	\$43.82
Wholesale prices (U. S. Dept. of Labor BLS, 1947-49 = 100).....	September	111.6	110.9	110.0	78.7
Personal income (seasonally adjusted, in billions).....	August	\$305.0	\$305.3	\$286.7	\$178.0
Farm income (seasonally adjusted, in billions).....	August	\$14.1	\$13.6	\$15.2	\$16.9
Retail sales (seasonally adjusted, in millions).....	August	\$15,662	\$15,484	\$14,150	\$8,541
Exports (in millions).....	August	\$1,227	\$1,268	\$1,156	\$812

* Preliminary, week ended Oct. 8, 1955.

† Revised.

** Estimate.

** Ten designated markets.

† Data for "Latest Week" on each series on request.

in BUSINESS this WEEK...

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BUSINESS TAKES A SOBER SECOND LOOK at how the future looks three weeks after the President's heart attack: It finds:

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The Pictures—Russell Birdwell Assoc.—58 (top); Checker Cab Sales Co.—150; Citroen—168 (bot.); Grant Compton—Cover, 120, 121, 166 (lt.), 186, 187; Du Pont—78 (ctr.); Foto Kempen—172 (top); General Electric Co.—90; General Motors—98 (bot); Martin Harris—168 (top); Bern Keating—78 (bot.); Monty Levine & Assoc.—9; McGraw-Hill World News—174; PFI—78 (top); Sherman Sable—136, 139; Gene Thomas—166 (rt.); U. P.—29, 42 (bot.); W. W.—42 (top); George Woodruff—30, 31, 32.

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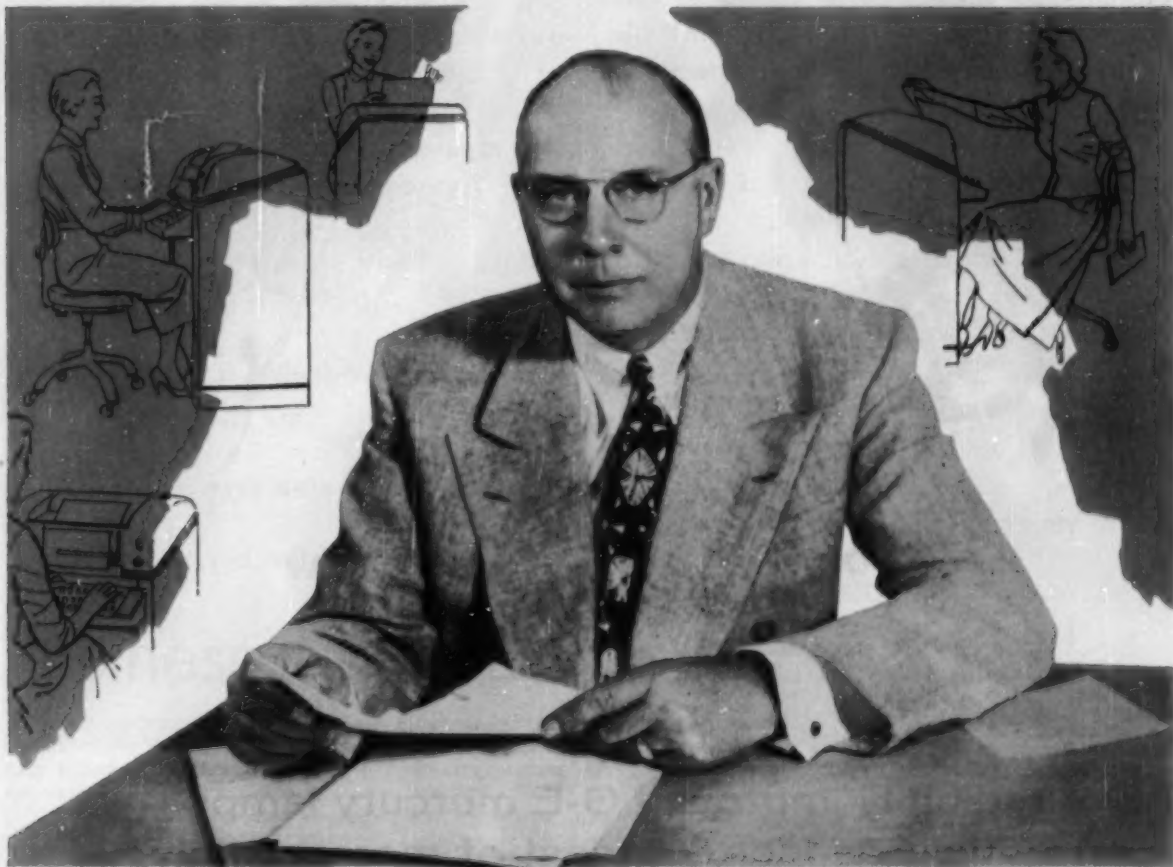
*"We co-ordinate sales and production
with Bell System communications"*

says Mr. John L. McCaffrey, President of International Harvester



How modern communications help keep 35 parts depots and manufacturing plants working as an efficient

International Harvester Company uses Bell System's modern communications to help maintain its world-wide reputation for quality products and service.



Radiating from the general office in Chicago, a network of private line telephone and teletypewriter services ties together 35 widespread parts depots and plants. The company can quickly marshal its forces to meet any problem that may arise, as well as keep routine work flowing smoothly.

"We co-ordinate sales and production with Bell System communications," says Mr. John L. McCaffrey, President. "Materials get to the right place at the right time because there is a continual flow of communications between sales and purchasing, engineering, production and shipping."

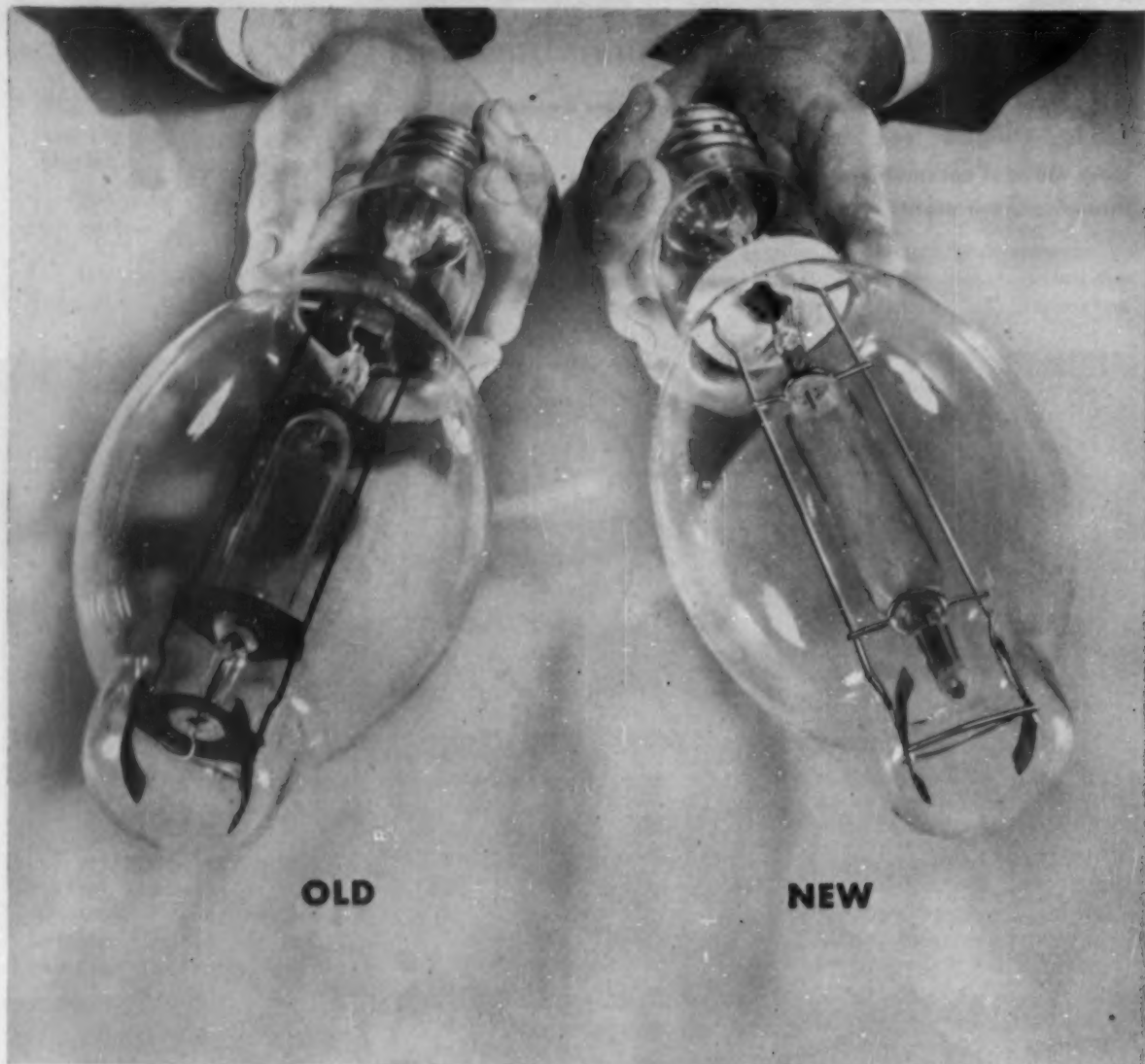
Has a survey been made recently of your company's communication needs? It may save you time and money. A Bell System communications engineer will be glad to do this without cost or obligation. Call your nearest Bell Telephone business office.



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G-E LAMPS GIVE YOU MORE FOR ALL YOUR LIGHTING DOLLARS



OLD

NEW

New, radically improved G-E mercury lamps substantially reduce the cost of mercury light!

EACH of the General Electric mercury lamps, in the picture, use 400 watts of electricity. But the new 1955 lamp gives 10% **HIGHER LIGHT OUTPUT** than the old model. There are **FEWER EARLY BURNOUTS**—those that occur before the lamp has burned 3,000 hours. These are down by more than half. And the new lamp has **LONGER LIFE**. It is so much longer that—for the first time in mercury lighting history—it is now rated on *economic life* rather than on *burnout life*.

Counting lamps, maintenance labor and electricity—the new lamp gives a bonus of light worth about \$9.00 compared to last year's model.

Above, you can see two of the ways General Electric has improved the lamps. Compare the little metal structures inside the lamps. In the early 1954 model, left, the structure is bulky and dark. It blocks and absorbs a lot of light. In the new lamp

it's slimmer, so it lets more light out. And it's silver plated, so it reflects the light that does hit it.

The lamp above is only one example. Other G-E mercury lamps have been radically improved, too. Yet most types cost *less* than before the improvements were made! To find what they can mean to you in dollars and cents, send for the new 12-page bulletin on G-E mercury lamps. It's free, just write Large Lamp Department, General Electric, Dept. 482-BW-10, Nela Park, Cleveland 12, Ohio.

Progress Is Our Most Important Product

GENERAL  ELECTRIC

"We think it is a time to tread warily."

"It's business as usual, and the usual is mighty good."

"We are geared to an expansion program that's already behind demand."

"We feel that this isn't a one-man government—or a one-man prosperity."

"There is no immediate fright . . . things are on too strong a footing."

"All we hear is 'When can we get delivery?'"

" . . . a very, very delicate situation . . ."

"If there is a radical change in Washing-

ton, we're apprehensive of what might happen."

"Something has been lost that the people maybe didn't know they had—confidence in the integrity of government. Those who think about it are bound to analyze this on the downside."

"With a Republican Administration, we are likely to have no less inflation. . . . But a Democratic inflation may be designed to help labor and the farmers, and the effects may be harmful to business."

"There's a caution at the conference table that was not there before."

" . . . a definite air of uncertainty in business circles. . . ."

Business Takes Sober Second Look

The quotations above are a fair sample of the things that businessmen were telling each other—and saying to BUSINESS WEEK reporters—this week.

They reflect a far reaching and significant change in the atmosphere—a change that began with dramatic suddenness three weeks ago when the world learned of Pres. Eisenhower's heart attack (page 37). The change sheared complacency from the business community, jolted the effervescent confidence that had been the prevailing mood of the country through the summer and early fall.

Now from Boston to San Diego, the note among businessmen is still one of confidence, but a confidence marked by restraint and sober caution—marked also by a recognition of the fact that the economic indicators no longer point unanimously upward.

There's no doubt that much of the inflationary threat has gone from the economy. All through the U.S.—in the

high councils of government, among bankers, among businessmen—people are reappraising the outlook. U.S. Treasury officials this week were still warning against inflation, but in other agencies, in the money market, and in business, the experts are alert for signs that the momentum of the economy is slackening.

• **Composite View**—BUSINESS WEEK's reporters, in sounding out businessmen and probing the economics underlying their opinions, put together a picture that suggests:

• The economy is operating at a very high level—and is delicately poised. It's so high that, as Chmn. Arthur Burns of the President's Council of Economic Advisers said this week, "neither the threat of inflation nor of recession can be far distant." It's so delicately balanced that the decisions to be made in Washington (page 26) will be more crucial than ever before.

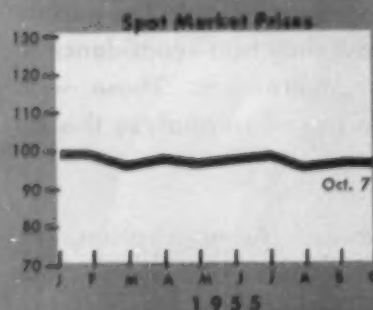
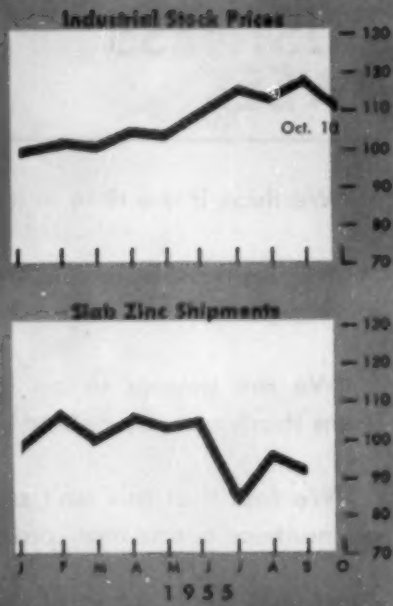
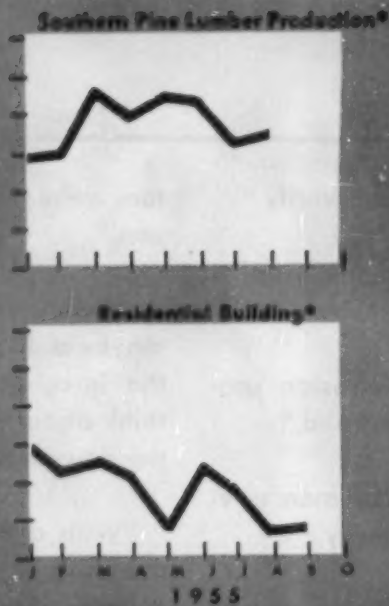
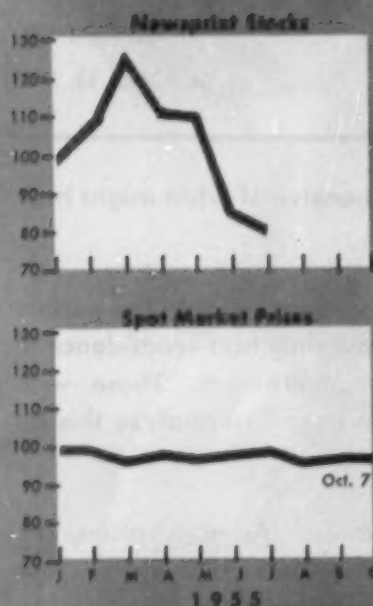
• There's a good deal of split thinking within the minds of individuals. Many businessmen protest that they are too busy to worry. The Federal Reserve Index of Industrial Production is at its postwar high; steel mills set production records in September. Yet these same men are upset by the slump in the stock market, which has shaved \$17-billion off the values of shares on the New York Stock Exchange alone. Investors who had been counting on five years of Eisenhower's moderate, business-oriented policies have had a huge uncertainty thrown into their calculations. As they see it, business could continue very good through 1960, but they cannot be sure that either business or investors will have the favorable climate that seemed certain a month ago.

• Economists have their eyes on the sensitive statistical indicators (pages 26 and 27) that have called turns in general business before. Some of the

KEY INDICATORS: These have turned down . . .

January 1955=100

January 1935=100



Data: Survey of Current Business, National Lumber Manufacturers Assn., Dow Jones Index, Bureau of Labor Statistics, Bureau Economic Research Service.

*seasonally adjusted by National Bureau of Economic Research.

indicators have turned down, which may portend a change in the general business cycle in mid-1956.

• **Business Props**—In general, businessmen are inclined to take their cue from their own order boards rather than from Wall Street. Several times since World War II the stock market and business have gone separate ways. For example, the stock market dropped precipitately in 1946—just as business was starting a rapid and steady three-year rise. That's why many businessmen have come to discount the stock market as a forecaster. In addition, businessmen right now are feeling the impact of three basic strengths in the economy:

• **Businessmen's own plans** for investing in new plants and equipment are at a record level—and rising. There's every indication they will continue to rise, despite the shock to confidence. **BUSINESS WEEK's** survey this week underlines that point. By preliminary indications, investment will rise more next year than at any time since the upward whoosh that came with war in Korea.

• **Investment in public facilities**—everything from schools to airports—is slated to rise steadily.

• **Customers continue to rush** the retail counters. Department stores sales recently were 15% ahead of a year ago. This buying power, supported by wage increases, promises to hold up and even gain.

All this is translated back to business

in surging new orders. In a wide range of industries—from plastics to tin cans—it has brought production men bumping up against ceilings on their capacity. It has worked a near-miracle for the auto industry, clearing out what had looked like a massive carryover of 1955 models and promising continued high production throughout the winter months.

I. Question Marks

But in the reappraisal that has followed Eisenhower's heart attack, business has found some question marks in areas where it saw none before:

While many businessmen still feel their inventories are low, business as a whole is now adding to its inventories at the rate of perhaps \$5-billion a year. That is a powerful propelling force behind the boom. But it is one that's geared closely to sales. Any slippage in sales would make inventories a drag, rather than a strength, behind the economy.

The customers, too, have been buying autos and appliances at phenomenal rates—but only because they've been running into debt at a phenomenal rate. Lately, installment debt has gained at the rate of \$680-million a month.

And mortgage money has become tight. The Federal Reserve Board and other agencies tightened housing credit earlier this year when the boom seemed to be getting out of hand. Now many

builders and others (pages 17 and 200) think the tourniquet may be too tight.

• **What It Means**—It's in weighing these factors that the men in economic councils in government, the directors meeting in board rooms, and the investors in Wall Street find that they disagree as to where the road leads from here.

And that's why the policy makers are keeping a watchful eye on the statistical signals.

II. Getting the Answers

Two outstanding sets of indicators (**BW**—Sep. 24 '55, p90—special report on Business Forecasting) are those of the National Bureau of Economic Research and Ashley Wright of the Standard Oil Co. (N. J.).

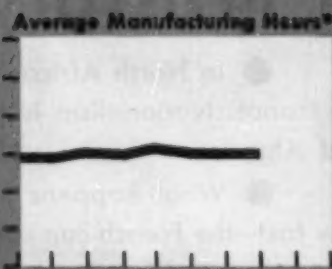
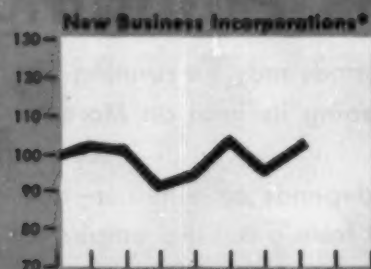
The charts above show 12 of the key indicators used by the National Bureau and Wright. At this point, they are giving off blinking yellow lights.

• **Varying Factors**—Geoffrey Moore of the National Bureau follows 21 indicators divided into groups that lead, parallel, or follow movements of the general business cycle. The eight leading indicators have been sliding down; the eight roughly parallel series have leveled; the five lagging indicators are still rising.

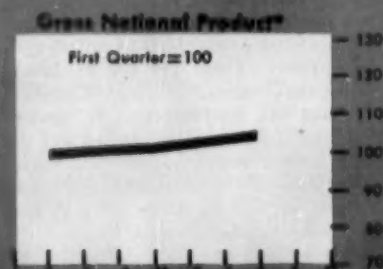
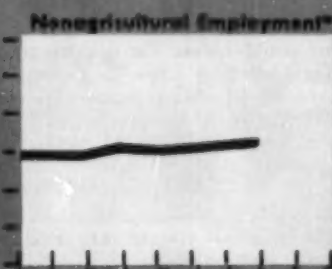
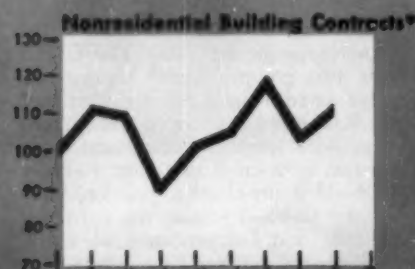
Roughly similar performances by the National Bureau indicators in 1949 and 1953 signaled modest downturns in general business.

...These have leveled or are still rising

January 1955=100



January 1955=100



1955

1955

1955

Data: Dun & Bradstreet Inc., Bureau of Labor Statistics; Survey of Current Business; Economic Indicators; Census Statistical Research Service.

Continued on p. 27

Jersey Standard uses 40 indicators selected as consistent bellwethers of the general business cycle. Enough of them have turned down—particularly stocks of newsprint, municipal bonds, high-grade industrial bonds, and contracts for residential construction—to suggest a turning point in general business six to nine months ahead.

These turn-spotting techniques are admittedly imperfect. It's hard to say what causes a jiggle in any of the indicators. And the indicators can't make any allowance for future events and decisions—such as cuts in taxes. Now, with the U.S. economy poised at record levels, decisions in Washington can have a decisive bearing on which way we go.

III. Congress and Confidence

Presidential election years are not contrived to soothe a businessman's nerves or to increase his confidence. The next 12 months will demonstrate this as painfully as any campaign in recent memory, besides providing some special worries stemming from Eisenhower's illness.

- **Democratic Assault**—Some things are already certain. Democrats in Congress are preparing an assault on Administration policies along these lines:

- They will try to turn the Administration's pro-business tax policy upside-down. Business is not likely to get any direct assistance if taxes are cut next year; it may even lose the incen-

tives to investment that were written into the 1954 Revenue Act at Eisenhower's insistence.

- They will step up their attacks on a dozen other Administration policies—from defense spending to housing and antitrust.

- The issue of businessman influence in the Administration will be pumped up for all it's worth, in an effort to show favoritism to big corporations as against small business.

- **Guessing Game**—The problem for business executives is more difficult than merely guessing which party will win—difficult as that always is. Management must also decide which part of the coming turmoil is empty political gesturing and which part of it may change the business climate of the next few years.

Here are basic guidelines to keep in mind:

First, Congress is still controlled by the same conservative coalition that has ruled it, by and large, for the last 15 years. Democratic chairmen are mostly Southerners, with little taste now for New Dealish reforms.

Second, times are too good for an all-out anti-business campaign to pay off at the polls. Responsible Democrats in Congress know this and will use it to keep the firebrands under control.

Third, the Democratic majority in both House and Senate is razor-thin; Republicans in Congress backed up by Eisenhower, if he gradually takes over

active leadership again, will be more than a match for Democratic policymakers on many key issues.

IV. Taxes

The House Ways & Means Committee starts tax legislation on its way through Congress, but the single most powerful voice next year will be that of Sen. Walter George of Georgia.

He favors a dual cut—one by increasing personal exemptions from \$600 to perhaps \$700, another by reducing rates. He has discouraged any talk of cutting the corporation income tax below the existing 52%.

The House may well vote a more extreme tax reduction than any that George and his fellow conservatives in the Senate will accept, but George's views are likely to prevail.

- **Fast Write-Offs**—The real question is what George and his followers will say about provisions of the 1954 act designed to stimulate business growth. Quick write-offs of new investments and special benefits for dividend income will come under heavy attack from some Democrats. The best guess is that George will favor keeping them in the tax law.

V. Spending

The heaviest shooting is likely to come in a wide range of issues involving spending. This will involve the Democrats in considerable embarrassment,

however. They are preparing a heavy attack on the Administration's failure to balance the budget; they will compare Eisenhower unfavorably with Truman. But on most issues next year, they will wind up on the spending side:

Defense. Democrats returning from junkets abroad are stressing their suspicions of Russian peace talk. This will lead to sharp questioning of Administration spending levels for arms.

Power. There will be a lot of oratorical hammering at the Administration's partnership principle. Actually, though, the Democrats will do most of their power electioneering next year on two timeworn issues—Hell's Canyon and Dixon-Yates. They will try to block private development of Hell's Canyon, and they will continue to cry "undue influence" in regard to Dixon-Yates.

Farm price supports. Democrats still insist they will try to restore rigid price supports at 90% of parity. If they do, this will increase federal outlays. A 90% bill has already passed the House; it never came to a vote in the Senate, however, and its reception there is still highly doubtful.

The prospect for tax cuts on one hand, for rising expenditures on the other, adds up to an inflationary federal budget for the fiscal year beginning next July. For businessmen who keep an eye on the long-run fiscal picture, this will be disturbing in itself. For the immediate business picture, it's likely to be stimulating on two counts: Consumers will have more money to spend, and the purchase of goods and services by the government will tend to rise.

VI. Credit Policy

Since last spring, the Federal Reserve System has been putting more and more pressure on the credit brakes, trying to keep the business boom from running away and becoming an out-and-out inflation. Now that the mood of business has changed, the Fed will have to decide whether the time has come to swing back to a neutral policy (page 200). If it does decide to take its foot off the brakes, business will feel the effects almost at once. Credit today is tight enough to count as one of the main restraints on some lines, especially housing.

Whether the Fed will have the support of the Treasury in this sort of flexible policy is still an open question. At the moment, Treasury officials still see no reason for easing up on credit. In their eyes, inflation remains the real danger.

The Fed, however, is an independent agency. And it is charged with keeping its own finger on the economic pulse. If it thinks the time to relax has come, it can go ahead no matter what the Treasury thinks.

History Is Plunging

● In North Africa, the sands may be running out for France. Nationalism is tightening its hold on Morocco and Algeria.

● What happens now depends on whether—and how fast—the French can convert from a colonial empire to a commonwealth.

Unless the French catch up soon, history could reduce the country to a third-rate power in a few short years.

Across the Mediterranean in Morocco and Algeria, nationalism is building up such a head of steam that France is being driven into a corner, where it faces the prospect of another Indo-China unless it quickly turns its 19th Century colonial empire into a 20th Century commonwealth.

But in Paris, you find party politics as usual, under a constitutional system that almost automatically reduces the power of any French government to a minimum, regardless of how strong the Premier may be.

• **Crisis**—There in a nutshell is the explanation of the political crisis that threatened to topple the right-of-center Faure government last weekend and still could bring his downfall at almost any time. Whatever happens to Faure—and he could be ousted over his upcoming budget as easily as over North Africa—the crisis atmosphere will last at least until the election next June. Meanwhile there are again signs of a wage-price inflation in France and of weakness in the franc.

Add it up and you have another chapter in the story of France's postwar weakness. At the worst, this story might end at one extreme with a military coup or at the other with a popular front government in which the Communists would play an important role. What's more likely, though, is a shift, after next year's elections, to a left-of-center coalition led by ex-premier Mendes-France. One of its big goals would be a new deal for North Africa.

• **Critical Year**—Much will depend on how France makes out this year in its race against history in North Africa. The vote in the National Assembly last weekend, which saved Faure's government, has encouraged Washington and London. It seemed to indicate that a majority of French opinion favors a North African solution that would keep the area tied to France on some federal basis. But approval was given only for Faure's intention to negotiate an agreement in Morocco, not for a specific plan that granted this protectorate some real home rule.

What's more, you can overrate the significance of the vote. The fact is that two groups outside the government saved Faure, the Socialists and the Radical followers of Mendes-France—and both had their eye on next year's election as much as anything. In order to build a pre-election position, they wanted to avoid joining the rightwing Gaullists and Independents; when the right-wingers deserted Faure, the Socialists and Radicals joined him temporarily.

I. What's at Stake

No one in France underestimates the importance of North Africa to the French nation. Morocco, Algeria, and Tunisia provide France with a huge protected market and vast untapped mineral resources. Even today, the markets of North Africa sustain the French textile industry and, to a lesser extent, the auto industry. Nothing could better suit the book of a protectionist-minded country like France.

To the south of the three Arab countries lies a much larger domain—French West Africa, French Equatorial Africa, and several other tropical colonies. This area would be hard to hold if France's North African bastion were lost.

• **Which Way**—If France could build this whole African empire into a modern commonwealth, it could count itself as a union of 100-million, able to hold its own with Britain and Germany, if not with the U.S. and the U.S.S.R. But if the whole edifice should topple, France could be reduced to an oversized Holland—and in the process could go through one of the worst convulsions in its history.

If the stake in North Africa is high, so is the danger. France has close to 200,000 troops in the area now, about three times the number it normally has kept on duty there. But this seems only to fan the Nationalist flames.

In Morocco, terrorism is reaching fever pitch. Recently one of the biggest phosphate plants was blown up. Telephone lines are continually cut. No French resident is safe in the countryside without armed protection, or in

Ahead Too Fast for France



city streets at night. What's more, the terrorists are beginning to recruit more and more of the native middle class, as this group becomes discouraged by French reluctance to grant reforms. This group is already engaging in a boycott against French goods.

II. Force—or Concessions?

Frenchmen have been divided on how to meet this situation, and not just on party lines. The split reached right into Faure's cabinet and led him to drop four Gaullist members. Worse still, it has led to obstruction of government plans by top French military brass. Most French generals, from Marshal Juin on down, think that force is the only answer. And they have had backing from a majority of the colonists and some French civilian officials in North Africa.

But the fact is that the French people have no stomach for a solution by force.

Premier Faure has been trying to maneuver his way through this situation by tossing out Sultan Arafa and replacing him with a "throne council." But clearly either Faure or a successor will have to make a solid offer of autonomy in domestic affairs if things aren't to get worse in Morocco.

• **Neighboring Problem**—In Algeria, a "department" of France, nationalism hasn't reached the fever pitch of Morocco. But terrorism is on the increase there, too. Since Algeria is le-

gally a part of France a different political solution is required. Until recently there was talk in Paris of ultimate integration with France. But it is realized now that this wouldn't make sense either politically or economically. So the talk now is of some form of federal structure that would satisfy Algerian political ambitions and still keep the country tied militarily and economically with France.

But the chances are that Paris will also have to offer some kind of economic aid program to Algeria—to raise the living standards of the nine-tenths of the population who live at bare subsistence levels. It will be hard for any French government to get the French taxpayer to finance economic betterment for Algerians. Some observers think a big part of the burden may be shifted to Uncle Sam.

III. Time Runs Out

Will France wait too long—as it did in Syria, Lebanon, and Indo-China? That depends partly on whether Frenchmen have learned a lesson from the course of history. And it depends partly on the significance of certain differences in the North African situation: (1) North Africa is closer geographically and easier to defend, when force has to be used; (2) French opinion is more attuned with the mood in North Africa than it was in the case of Indo-China; and (3) there is a real

economic interdependence that didn't exist in the other cases.

• **Political Poser**—That still leaves the problem of the French political system—whether an Assembly majority can be found for the decisions that must be made soon in North Africa. It may be that Faure will start a settlement process in Morocco—and then be pushed out of office by some combination of rightists, who want his scalp for pushing North African reform, and of Socialists who don't agree with his economic policy. In short, Faure might have to pay with his job if he took a forward-looking step in Morocco. That's what happened to Mendes-France just after he had laid the groundwork for a settlement in Tunisia—one that Faure eventually carried out.

If Faure manages to stay in office long enough to start reforms, there's a reasonable chance that a successor government could at least keep the lid on North Africa until next June, when the French elections are to be held. That would put the problem of catching up with history in North Africa up to the French people, not just the politicians.

If the French voters decide on a commonwealth type of solution, you will see a left-of-center government in France—a coalition of Socialists, Popular Republicans, Radicals, and perhaps some ex-Gaullists, a government led probably by Mendes-France. Only these parties are thinking in such terms.

Red Housing Men Sniff, But Write



RUSSIAN VISITORS wanted to know how the lumber is cut, what goes into the plaster, how is plumbing delivered.

THE RUSSIANS pictured above, part of an official 10-man delegation of Russian housing bigwigs headed by I. K. Kozulia, minister of urban and rural construction, are off on a 26-day, 13-city, tour of the U.S. The fast trip will whisk the group of 10 through such contrasting cities as Boston and Houston, New York, Fort Wayne, Chicago, and San Francisco.

In Boston last week, making their first main stop after greetings in Washington, they smiled occasionally and courteously. They acted nonchalant and unimpressed. But like the group above, they all fired constant questions about microscopic details, took notes on pocket-sized pads, and recorded what they saw with U.S.-bought cameras.

• **Persistent**—They had some quick criticism of U.S. methods ready, too. But there was no question that they were after every scrap of information that would help them meet Russia's

critical housing problem. They wanted samples and ideas to take home.

They stuffed briefcases with insulation, shingles, metal stripping. They persistently requested blueprints, ordered catalogs—and even kitchen appliances. They had their own ideas on what they wanted to see, and at least twice disrupted their hosts' schedule in order to see it. At one spot, part of the delegation slipped away to talk to professors at MIT's School of Architecture and its hydrodynamics lab. And their interest in construction in process rather than occupied homes caused the second day's original schedule to be junked.

The sponsors—the National Assn. of Home Builders and Boston's Rental Housing Assn.—had planned the tour around existing housing. At the first stops—a ranch house, a Cape-Codder, a prefab—the Russians probed the homes with surgical precision. With poker faces, they examined wallpapers, bath-

room fixtures, door and window frames—and asked for blueprints.

Then, as the packed buses rolled along, the Russians gawked at unfinished shells of new supermarkets and schools, indicated they wanted to examine the construction under way. The second day they picked their own sights—a South Boston school and a wing of the Massachusetts General Hospital, both now under construction.

• **Questioning**—It was reported that the Russians practically fought among themselves as to who would get the cushy, informative U.S. housing tour. But the members of the delegation—which included Russia's top men in architecture, school and housing construction, sanitation, and materials—showed from the start they were more interested in information than pleasure.

At a Braintree housing development, the Reds wanted to know if the wood frames were factory-cut or site-cut. They asked how plumbing fixtures were delivered. They watched a worker lay linoleum, photographed his methods. At another development, Kozulia bubbled with enthusiasm over a combination screen and storm window, immediately asked, "How much?"—and ordered one for \$27. Inside the house he ordered an accordion-type sliding door.

Several Russians cornered a plasterer, demanded details of the mix he used. They got so excited, pressing for information while stirring the plaster with a shovel, that two of them splattered plaster on their buggy, Soviet-tailored pants.

• **Brass Bands**—Except for a demonstration by Latvian DPs when the delegation arrived at Boston's Logan airport, the reception was fairly friendly. But there were some noticeably undiplomatic moments. At various stopovers, workmen turned away from the delegation, sometimes disappearing entirely. One bricklayer, with a look to match his words, growled: "Like the Japanese. They want to see how we do it. Then they turn on us." Architects and contractors at sites along the route acted indifferent, rarely bothered to ask the Russians about their techniques.

At MIT the Russians were intensely interested in exchanging information, brought along 13 new Russian books as a gift. But the MIT professors seemed bored with what the Russians were ready to tell them about Soviet techniques. The Reds said they had digested most U.S. textbooks and monographs, asked whether Americans had done the same with the Russian literature. One professor replied, "We receive your publications, but we don't

It All Down



Heavy briefcases and rickety stairs didn't stop inspection of attics.

bother to translate them." At a reception the last night in Boston, two of the top Russians privately protested that nobody at MIT took their visit very seriously.

• **Disagreements**—The delegates had some criticism of U.S. methods—though these at times involved them in arguments with each other.

At one stop, the Russians watched workmen pouring concrete into wooden forms to make front steps for a house. F. A. Shevelev, senior scientific researcher of the VODGEO construction institute, argued that prefab construction would be the rational way of making steps, and much cheaper, too. V. S. Timofeyev, chief of office, Mos-



Movie cameras pointed at carpenters, plasterers, linoleum-layers.

cow board of construction, snapped back that sometimes pouring cement on the spot is better than precasting in a factory.

• **Potshots**—Though Kozuilia pointedly announced that the delegation would make no final judgments on U.S. construction till the tour was over, he wasn't above a few potshots.

He had been arguing through the trip that buildings, as in Russia, should not only be useful but also monumental, as a lasting tribute to their builders. But in examining plans for a hospital wing, he was startled at the high safety factor—five times the strength required for normal use. "In Russia," he said, "the safety coefficient is seldom more than two. Do they think in America that a bird on the roof is going to hurt the building?" Americans retorted that a building is more likely to be monumental with a coefficient of five than of two. Kozuilia came back sarcastically, "An architect can sleep safely with a coefficient of five?"

When the delegates saw roller painting, they were indifferent. This, they said, was nothing new. Neither was spray painting. But they closely examined the design of the nozzle and regulator controlling the spray. And they carefully wrote down, over and over again, names of suppliers of specific materials and tools, hinting they might be in the market for substantial purchases.

• **Needs at Home**—This serious interest was a long way from pretense. The housing shortage in Russia today is more than a social problem. In many cities, it has become a real economic bottleneck. Premier Bulganin stressed that factor recently when he told a Soviet managerial group that lack of adequate housing was chiefly responsible for the big labor turnover in Soviet industry (BW—Oct. 1 '55, p116).

After World War I and Russia's civil war, per capita housing space in the cities had shrunk to 60 sq. ft. by 1928. Stalin's industrialization drive made things worse—by 1940 the figure had dropped to about 40 sq. ft.—that's a space 4 ft. by 10 ft. for each person to eat, sleep, and live in. The heavy building during the past decade has barely made good the destruction of World War II. Lack of adequate transportation facilities in Russian cities intensifies the problem by increasing urban concentration.

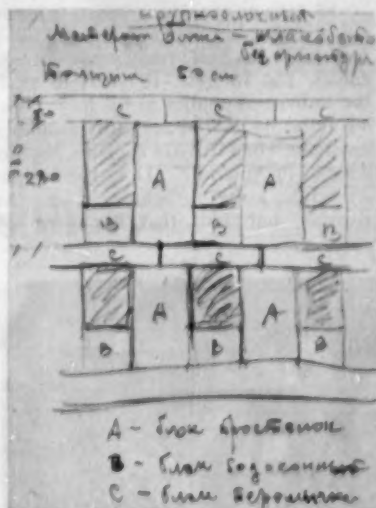
• **Cat Out of Bag**—Although the Russians frequently boasted of their own developments—notably the intensive drive they're putting on to increase production of precast concrete shapes for mass building—their eagerness to crib American ideas frequently brought their own deficiencies into the open.

You could tell they'd had little ex-



A sample screen-storm window combination was bought on the spot for \$27.

perience with air conditioning. They even admitted that in Russia there are no single-room air conditioners; and in MIT's slick new Kresge auditorium, their main interest was the air ducts in the ceiling. At Braintree, Russian lack of electricity popped up. They asked about the economics of electricity vs. gas for appliances, later admitted electric appliances in Russia are rare because of inadequate supply of current.



Russians dashed off sketches of their own methods too—here an apartment building.

More telling were some non-technical admissions in off-moments:

• A full third of Russia's construction labor force is "green," just out of apprentice school—and young men drafted quickly into the army, away from construction work, rarely return to it.

• Construction labor in Russia,



They came to learn—but didn't hesitate to expound their own doctrines.

in contrast to the U.S., is at the bottom of the pay scale. (Even a 25% wage increase for construction workers last August didn't help much.) As a result, there's terrific pressure within Russia to find skilled workers. "Your strength is in skilled labor," one of the Russians said.

• **Soviet Home Building**—The Soviets are concentrating on multiple dwelling units—all state-owned—but apparently to help alleviate the shortages, Russia is now encouraging individual construction of one-family homes.

According to the visiting experts, a Soviet citizen can build his own home either from his personal savings or a loan. For a loan (maximum 10,000 rubles, 2% interest, 10 years to pay), the individual applies to his local housing authority. "The authority examines his credit," one Russian explains, "some-what as in America." Does the authority refuse loans? "Seldom," says the Russian, but adds that it might tell

people in a high-income bracket to use their own money.

To get land, he adds further, you must pay an additional rent on top of mortgage payments, because "the state owns all the land, so it's just like your taxes on property." Even then there's no organized private-home building. A family wanting its own home builds it itself, maybe with the help of friends.

• **Big Push**—But the big push, the Russian visitors said, is on big multiple-family apartments, most of them to be mass-produced out of precast concrete. They plan to build about 230 plants, scattered around the country, to make the precast shapes and slabs, do as much factory assembly as possible.

For their mass production, the Reds have established so-called "construction trusts." On a given block of flats, for example, a basement-trust does its job, moves on to the next site, and is followed by the "wall-trust," and others in succession. "The trend is toward specialization of manufacture," declared one visitor.

Although workers are no longer required to live in housing directly connected with their place of employment, the Russians noted, few workers want to move out of the cities. Since city space is at a premium, massive vertical housing is almost mandatory.

• **Hot and Cold**—Although the inquisitive delegation includes heating and sanitation experts, the Russians claim that all their new construction has adequate plumbing and central heating. Large apartment houses have their own heating systems—smaller ones tap city power and heating plants, they say.

But though they tended to sniff at American heating units, the Russians indicated that heating is still a problem at home. At one house, a Russian praised the design, but when told that the house was designed for temperatures as low as -20F, insisted that in Russia "it would be suitable only for the Crimea or Caucasus." At another house, a delegate examining the attic bent down to feel the insulating material, stuffed a piece of it in his side pocket.

• **Sobersided**—Compared with the recent farm delegation, the Russian construction specialists were neither so humorous nor so boisterous. Evening receptions did not swim in vodka. The first night there was but one toast with vodka that the delegates had brought with them. Nor were they overly anxious to talk away from the technical range.

When one delegate referred to a Cape-Cod house as "something like a Russian's summer home," he was asked how workers could live in the city during the winter, move to the country during the summer. His answer: "Why torture me with questions!"



Presentation of Russian technical books to MIT met with affable response.



Samples of materials were grabbed and pocketed everywhere.



Even on the homeward-bound bus, the constant note-taking continued.



Blueprints were requested everywhere—for free or for cash.



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Relax the miles away over a tempting, hot, freshly-cooked dinner—or your favorite refreshment. Then to restful sleep in a king-size bed. Have a "rent-a-car" reserved for you at your destination, if you wish.

BUSINESS BRIEFS

New Atomic Energy Commissioner is Harold Vance, chairman of the executive committee of Studebaker-Packard. Vance is an old hand in Washington. In 1953, he refused the job of Director of Defense Mobilization, since then has served ODM as a part-time consultant.

More gas for the Midwest will be on tap if the Federal Power Commission O.K.'s twin applications filed by Tennessee Gas Transmission Co. and its new associate, Midwestern Gas Transmission Co. Midwestern wants (1) to build a 1,112-mile pipeline to bring Texas-Louisiana natural gas from Tennessee to Minnesota, and (2) to import 200-million cu. ft. of gas per day from Canada (BW—Aug. 20 '55, p. 36). At the same time Tennessee Gas applied for massive expansions of its related facilities.

U.S.-made jet transports are getting closer to actual commercial service. At midweek there were strong rumors that Boeing Airplane Co. would sign the first sales contract for the new craft with an unnamed airline, probably United.

Economic indicators from government sources: Personal income in August dropped very slightly from July, to a \$305-billion annual rate, but was 6% above August, 1954. The July-to-August drop was blamed on a book-keeping adjustment in federal payrolls; non-governmental personal income was up. . . . September spending for new construction passed \$4-billion for the first time in history, 9% above the year-before month. . . . End-of-August inventories held by businessmen were \$78.9-billion, a rise of \$2.3-billion above the 1954 date.

Canada's sixth and ninth banks will merge on Nov. 1, if stockholders approve. Finance Minister Walter E. Harris this week O.K.'d the marriage of the Imperial Bank of Canada (\$772-million assets, 259 branches) and Barclays Bank (Canada) (\$40-million assets, seven branches).

World output of rubber, both natural and synthetic, topped consumption in August. For the month, natural production was 165,000 tons, consumption was 142,500 tons; synthetic production was reported at 92,500 tons, consumption at 82,500 tons. But for the first eight months of 1955, natural production was 40,000 tons under consumption, synthetic production was 25,000 tons above consumption.

How to overcome Gravity

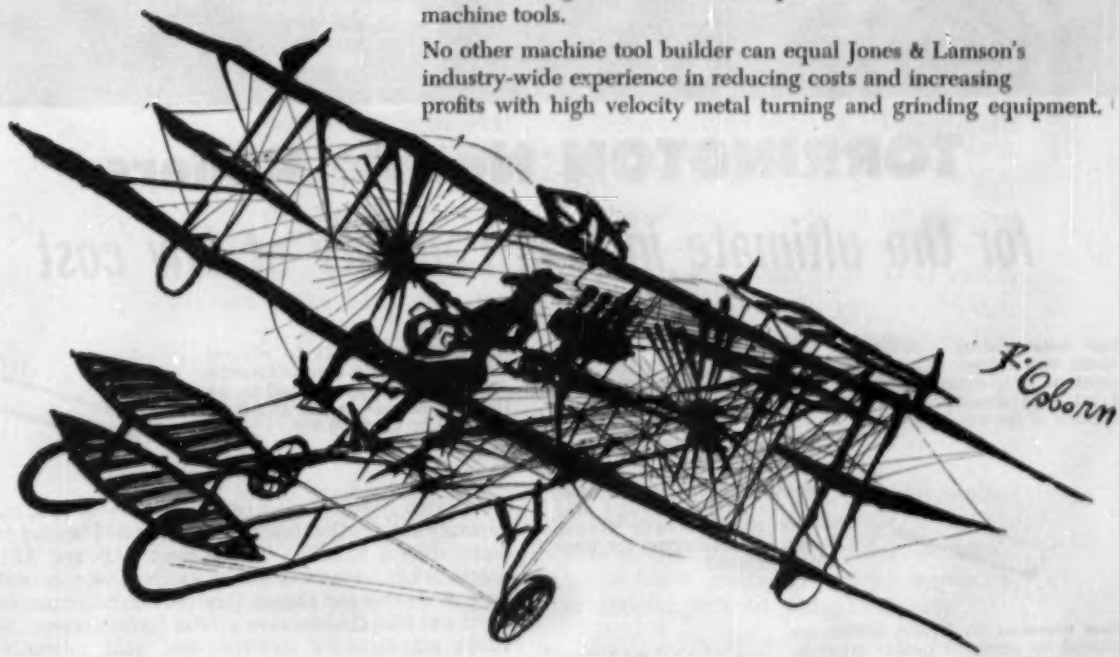
In these days of heavy overhead and tough competition, it takes just as much skill to pilot a small business profitably as a big one — and maybe more!

Today, for instance, the thousands of small subcontractors and suppliers to the aircraft industry add up to one of the biggest manufacturing enterprises in the world — and one of the most competitive. To profitably compete in this high-precision market calls for plenty of ability and *flexibility* — and the smart operators know this:

The cost of labor is high, and going higher. As a result, profitable operation with today's competition depends more and more on improved techniques for lowering cost and upgrading quality.

With the cost of *money* also rising, there will never again be a more advantageous time for the replacement of outmoded machine tools.

No other machine tool builder can equal Jones & Lamson's industry-wide experience in reducing costs and increasing profits with high velocity metal turning and grinding equipment.

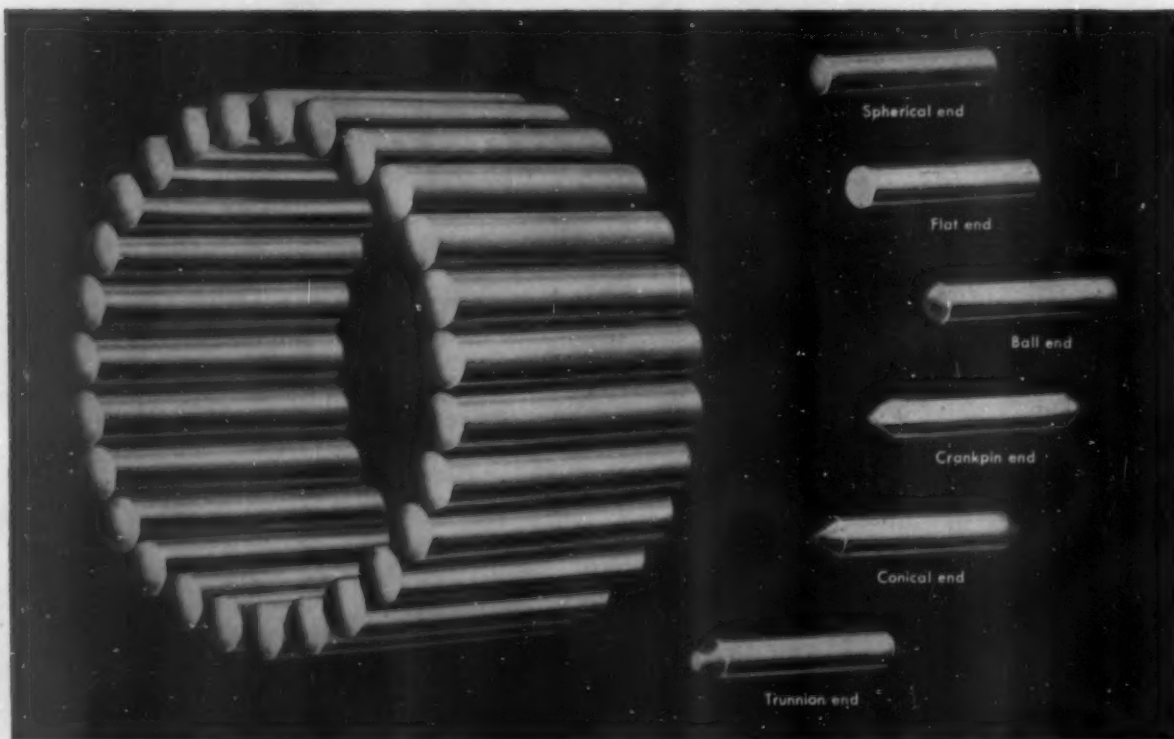


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JONES & LAMSON Machine Company, Springfield, Vermont

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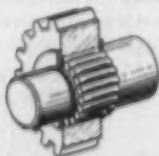
TORRINGTON Needle Rollers *for the ultimate in load capacity at low cost*

High radial capacity in minimum space stems from full complement of small-diameter rollers. Load zone contains maximum number of contact lines.



High carbon chrome steel is carefully hardened, ground and lapped to make each Needle Roller a precision part for long-life performance.

Close tolerances on Needle Rollers are assured by stringent quality controls. Standard OD tolerance is .0002" but rollers can be supplied with OD tolerance of .00005." Tolerance on length dimension depends on end formation.



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Torrington Needle Rollers provide the lowest cost, highest capacity anti-friction bearings obtainable. They are manufactured in a complete line to meet SAE and AFBMA specifications. Available in the inexpensive spherical end type or in other end shapes, they provide maximum retainment and fillet clearances or greater lip retainment. Needle Roller standards for material, heat treat, tolerance and finish are the highest in the industry.

Good operating results with Needle Rollers require careful design of mating parts furnished by the user. The Engineering Department of The Torrington Company, with broad experience in applications of Needle Rollers, will be glad to give you technical advice on your needs.

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WASHINGTON OUTLOOK

WASHINGTON
BUREAU
OCT. 15, 1955



The thing that's lacking is that old feeling of confidence.

News from Denver is on the reassuring side—prospect that Eisenhower will be back in the White House when Congress meets in January.

And the government is running smoothly. Day-to-day business is being handled (page 158) by the team—the Cabinet and National Security Council. And the President now is able to pass on any question that must go to Denver. So, nothing of importance is being delayed today.

But uncertainty about the future is spreading. The change in the political picture is bringing reappraisals of the business outlook. Signs of caution are showing among business and government analysts (page 25).

—•—

What seems to be happening: The probability that Eisenhower won't run next year is getting wider acceptance. Associates of the President still flatly refuse to speculate—say it's up to Eisenhower, himself. On top of the big political question mark raised by the President's illness is the fact that the Administration faces a series of business-influencing decisions in the next few months. They can be put off for a while, but not much beyond the first of the year, when Congress gets back. Here's a quick run-down of the major questions ahead:

—•—

Taxes—The Eisenhower line is that a balanced budget must come ahead of tax reductions. The team won't want to change this, even if it does mean letting the Democrats get ahead with tax relief next January.

The budget—The law requires the President to submit his spending schedule for the upcoming fiscal year in January. Usually, it's a mid-December decision by the President, after hours and hours of study of recommendations gathered by the Budget Bureau.

Farm policy—Republican politicians, generally, want a revision in Benson's program to boost farmer income in one way or another. It's a current issue within the Administration and probably will have to be settled by the President.

—•—

The hard money policy, aimed at avoiding inflation, falls into another category. Eisenhower has driven pretty clear guideposts. He wants the government to encourage a high level of business activity but to hold a stable price line. If some relaxation of credit restraints becomes necessary, the money managers can make the decision without going to Denver.

—•—

Here's how the government will be run:

Domestic decisions largely are up to the Cabinet. The Cabinet isn't originating any new policies—merely carrying out Eisenhower policy.

The National Security Council, responsible for defense, takes over where the Cabinet leaves off. Its field is defense, which takes in foreign policy and domestic policy wherever that bears on security.

Nixon presides over both at their weekly meetings.

—•—

The Big Five in names, until Eisenhower can take over:

Nixon, the Vice-President—He raps the Cabinet and Council to order. In the absence of the President, more and more officials report to him.

WASHINGTON OUTLOOK (Continued)

WASHINGTON
BUREAU
OCT. 15, 1955

Treasury Secretary Humphrey—He has long been called Eisenhower's strong man. He's a favorite with the President. His is a strong personality. And, as the money handler, he is drawn in on most decisions and policies.

State Secretary Dulles—He has the job of keeping the world's peace. And on foreign policy his word is law in the Cabinet and Council.

Defense Secretary Wilson—His job as boss of defense also has its economic side—government is business' biggest customer.

White House Chief of Staff Adams—He can say who and what gets to Eisenhower. He's the real go-between—between Washington and Denver.

—•—

Whether Eisenhower takes over in January will remain a question for another 10 weeks. Facts on his recovery aren't being withheld. It's probably the first time that you have had a full day-by-day story of the illness of any statesman.

The healing is slow. This has been buried in many news stories, which placed the emphasis on the fact that the President is recovering, making progress from one day to the next. But doctors use the word "slow."

The probable timetable: Eisenhower will be moved within a month or five weeks. He will go to his Gettysburg farm, not to the White House.

—•—

Cabinet meetings at Gettysburg this fall are being talked about among the team members. The figuring is that these would help with recovery—sort of get the President back in the swim. But if they are held, they will be well regulated. Discussions will be brief.

An Eisenhower TV appearance in December or January figures in the plans now being made. Whether this goes through or not depends on the rate of recovery. But the thinking is that this would give Eisenhower a first-hand opportunity to reassure the nation and to state his plans.

—•—

Democratic politics are getting more mixed up.

Note Harriman's squirming. The New York governor, when it seemed sure Eisenhower would head the GOP ticket and win, announced his support for Stevenson as the Democrat to run in 1956. The expectation since Eisenhower's illness has been that Harriman would back away on this (BW—Oct. 8'55, p38). Harriman now says he sees no binding commitment.

Then, there's Truman. The ex-Democratic President was very hot for Stevenson in 1952. Since then, he has reiterated his 1952 position. But when he visited Harriman recently, he left things high in the air. Even Democratic National Committee officials are baffled.

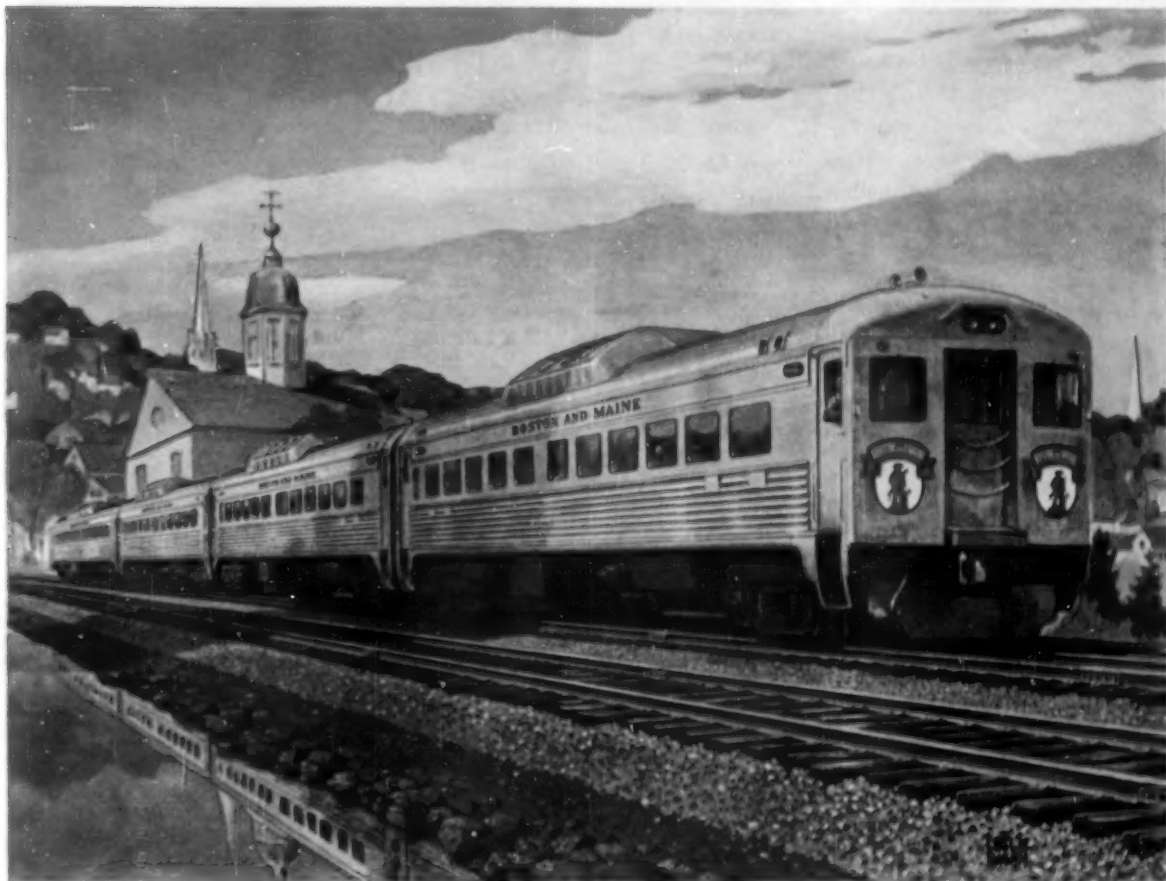
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It may be a pressure play on Stevenson. The 1952 standard-bearer was a little cool to the Democratic city bosses and the labor leaders. They went away from him feeling that maybe they should use the side door. One party leader figures the likely net effect of this pressure will be to make Stevenson more accessible and more liberal.

—•—

One thing both sides think is sure: Eisenhower will make his own decision early. And with the Democratic in-fighting now going on, a new GOP candidate, if that's what it's to be, will have a running chance.

*Manufacturers of automobile bodies, frames, wheel assemblies and brakes
Builders of stainless steel trains and highway trailers.
THE BUDD COMPANY Advanced engineering and research. A United States Defense resource.*



BUDD RDC CUTS A GORDIAN KNOT

New England's Boston and Maine Railroad had a more-than-usually difficult commuter problem.

Morning trains funneled into North Station, Boston, from Fitchburg, from Lowell, from Haverhill and Portsmouth and Gloucester. And then following trains bottled them in.

Everything would finally get turned around in time for the evening's outbound stampede. But meantime the railroad was glutted with idle equipment.

Budd's rail diesel car—RDC—has made it possible to change all that. This air-conditioned, stainless steel car propels itself in either direction, merely by having the engineman take his control

handles from one end of the car to the other. It can, and does, go into North Station and out again in five minutes.

During periods of light traffic RDCs operate individually. As traffic builds up, trains of RDCs can be assembled. Any number. All controlled by one man.

The Boston and Maine now operates the world's largest fleet of RDCs—64 in all. And it keeps them busy. The cars average eleven runs a day. They have replaced 67 locomotives and 245 coaches, to give New England rail service such as it never enjoyed before. Yes—the word is enjoyed.

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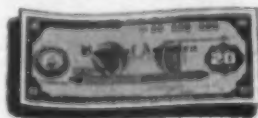


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• • •

Manhattan's West Side

In for a Beauty Treatment

NEW YORK—For sheer massiveness, it's going to be hard to beat the urban renewal plan that Mayor Robert F. Wagner laid out last week.

Wagner told a visiting House Banking & Appropriations subcommittee the city has agreed "in principle" on a redevelopment program for Manhattan's entire upper west side. The exact area would run from 59th Street to 125th Street and would stretch between Central Park and the Hudson River. Involved would be some of the city's best residences—and some of its worst slums.

Wagner's plan, which is only in sketch form now, is to concentrate private and public rebuilding efforts in the area with an eye to saving the good buildings, fixing up the ones on the downgrade, and scrapping those beyond reclaim. The city would ask that its entire 1955-56 federal housing allocation be earmarked for the section. On top of this, it would plan to throw in all its own funds for nonsubsidized middle income housing.

The mayor's first step will be to ask the City Planning Commission to certify the upper west side as an urban renewal area. This has to be done before the federal government can open the door to any of the benefits available under Title I of the National Housing Act. Although the plan is sure to face many obstacles, one thing about it was certain this week: By concentrating on a specific area, it had caught New York's imagination as scattered redevelopment plans never had.

• • •

Small Ohio Community

Cops an \$85-Million Plant

AKRON—The little town of Macedonia, Ohio (pop. 1,200) walked off last week with what will be one of the biggest metal stamping plants in the world. Chrysler Corp. will build it, and when it reaches capacity operations in 1957 it will take about 3,500 people from the area to run it.

Chrysler had been looking for a site in the Cleveland-Akron-Youngstown area for nearly three months. Its aim was to get as close as possible to the big steel production centers. In picking Macedonia, which is about 15 miles north of Akron, it got a 300-acre tract, already zoned for industry, and land close to both the Pennsylvania RR and the new Ohio Turnpike.

The company's choice of the site is the first big stride for the area development committee that was organized last November to promote industrial growth in the three-county area around Akron. Actually, Chrysler had seemed all set to put the \$85-million plant into Brooklyn, a Cleveland suburb. But Brooklyn apparently lost out because it couldn't put through necessary rezoning in less than 60 days. On top of this, Chrysler

officials reportedly were peeved at Brooklyn's mayor, who announced prematurely that the deal was set.

Although Macedonia now seems to be the final choice, two things still have to be settled—water and sewage disposal and test borings on the land. Chrysler feels that neither of them will hold up the building.

• • •

Toll Bridge's Success Story

Kicks Up a Two-State Fuss

TRENTON—The governors of New Jersey and Delaware last week named an eight-man committee to try to settle a bi-state fuss over Delaware's Memorial Bridge.

The bridge, which runs from Deepwater, N. J., to a point south of Wilmington, Del., was built entirely by Delaware under an agreement between the two states. The pact said that after 1978 it was to be toll-free.

Since the span opened in 1951, however, traffic has been so heavy—and toll revenues so high—that officials now figure that bridge bonds can be paid off by about 1960.

This—the prospect of free traffic 18 years ahead of schedule—looks fine to New Jersey. The only rub is that Delaware now wants to re-finance the whole project, use the money to build new feeder roads, and keep the tolls indefinitely.

The Republican-controlled New Jersey legislature has already shown its irritation by passing a bill that would tax the Delaware-owned approaches to the bridge that lie on the New Jersey side. Democratic Gov. Robert B. Meyner has the bill on his desk now. By last week, though, signs were that he would veto it and settle for some compromise out of the eight-man committee. Meyner says he's not opposed to Delaware's plan, but would like to see some of the bond money spent for improvements on the New Jersey side.

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Route 20 Businessmen Mobilize

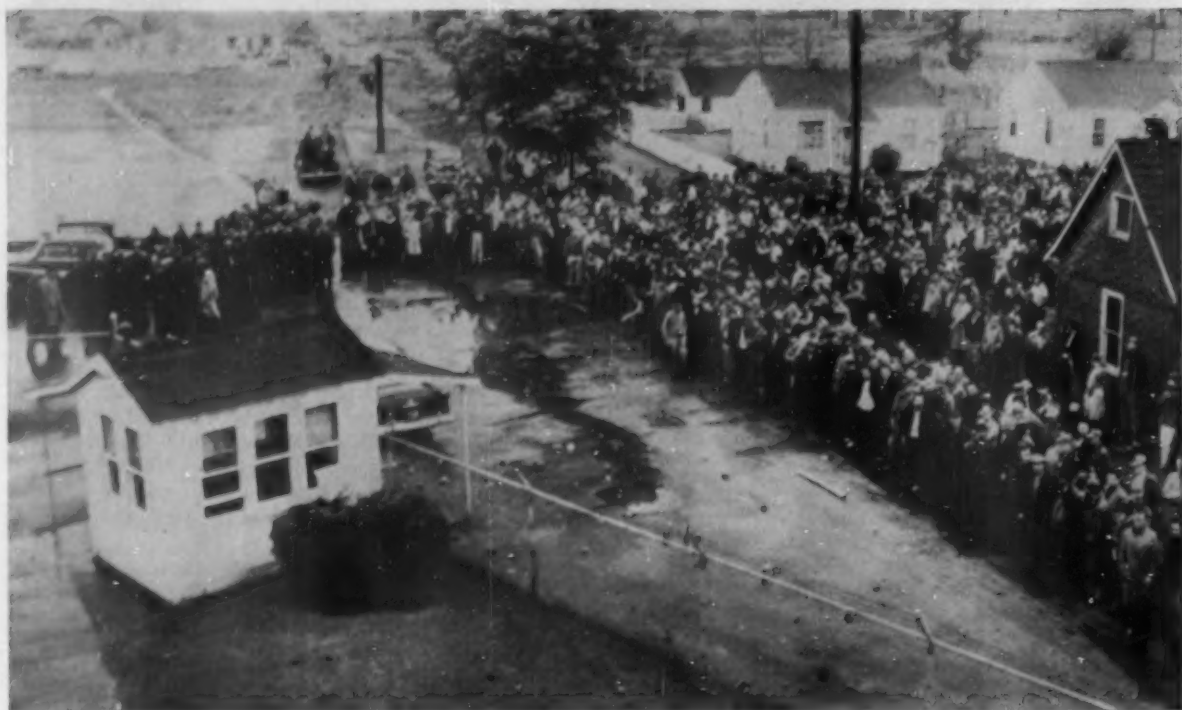
To Recapture Thruway Traffic

SYRACUSE—The beleaguered businessmen along Route 20 in central New York last week sent an urgent plea to Gov. Harriman that they hope will bring at least some psychological help from the state.

The businessmen, who have been suffering ever since the New York State Thruway began to lure their traffic away (BW—Apr. 2'55, p146), asked Harriman to add some semantic dignity to Route 20 by changing its name to the Route 20 Freeway. At the same time, the motel, hotel, and restaurant owners incorporated themselves as a new Route 20 Freeway Assn., to publicize the joys of not driving on the Thruway.

So far, business operators have had little success in trying to recapture the traveling customers who used to move east and west along Route 20. Reports from Albany to Buffalo put this year's business down as much as 50% from pre-Thruway days. Motels have been particularly hard hit, and some of the smaller ones have already folded.

LABOR



In a show of labor strength, pickets mass at Perfect Circle's foundry in New Castle, Ind. An exchange of bullets between the 5,000 storming unionists and 100 nonstrikers wounds eight persons.

Strike Rolls Up Into Warfare



INSIDE THE PLANT, nonstrikers worry over threats to their property. Meantime, martial law is clamped on the city, and even high school football games are canceled.

Labor violence was a common thing in the mid-1930s, when industrial union organizing was new and widely opposed. Since then, labor-management relations have become less bloody. There is still conflict, but for the most part it is limited to bargaining tables and reasonably orderly picketing.

Last week, however, stark, deadly warfare broke out in a 10-week strike by the United Auto Workers (CIO) against Perfect Circle Co.'s foundry in New Castle, Ind., an industrial city of 18,271 population. An exchange of bullets between 5,000 storming unionists on the outside and 100 nonstrikers inside wounded eight persons.

• **Implications**—For the UAW, which claims to be the nation's largest, strongest union, the outbreak had sobering implications. Last year, in Kohler, Wis., the Kohler Co. elected to fight a strike by UAW by continuing operations in the face of mass picketing. During the early days of the walkout, sheriff's deputies confiscated tear gas, guns, and other

First and Foremost...

BURLINGTON VISTA-DOMES



In 1945 Burlington built the first Vista-Dome train when conceived by C. E. Osborn, vice president of General Motors) to let traveling Americans test this exciting new "penthouse on wheels." From the very first, Burlington Vista-Domes were a sensational success!

Today the Burlington operates 34 Vista-Dome trains — more than any other railroad. They have revitalized train travel. From coast to coast, other railroads have inaugurated Dome trains . . . following the lead of the Way of the Zephyr.



The ultimate in travel enjoyment —that's Burlington's Vista-Dome fleet!

* When you ride these superb trains, you'll be impressed with their smooth, effortless speed . . . their deluxe appointments and modern decor . . . the wonderful service that's yours in dining cars, buffet cars, sleeping cars, parlor cars and coaches. And most of all, you'll enjoy the extra pleasure of Vista-Dome travel.

Vista-Dome travel is another Burlington first. It's another example of Burlington leadership

. . . in freight transportation as well as in passenger service . . . which has long been an important factor in American railroad progress. You can rely on the Burlington for continuing leadership in its industry . . . continuing improvement in its service to you.

Next year, two more new Vista-Dome Zephyrs will enter service between Chicago, Omaha, Lincoln and Denver. These completely new DENVER ZEPHYRS will make 26 Vista-Dome trains operated by the Burlington.

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Dennison offers you a skilled creative staff and unexcelled production facilities for complete tag service.

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Dennison

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weapons bought in preparation for labor troubles—although never used. The Kohler strike is still going on after 18 months.

- **Similarity**—Except for the fact that shots were exchanged in New Castle, there is a similarity in the Perfect Circle and Kohler strikes. In both, issues that management considers basic are involved. And in both, determined management and determined union have clashed head-on with an apparent unwillingness to compromise in any way on key questions.

At a time when the bargaining area is being further extended—covering, for instance, supplementary unemployment pay, which is strongly opposed by many employers—and when AFL-CIO merger talk is increasing management's concern over big unionism, some in UAW see in Kohler and Perfect Circle strategy a resurgence of anti-union tactics.

- **Clashes**—Perfect Circle's foundry is one of four plants of the engine piston ring company struck by UAW on July 25. Management has tried, with some success, to operate the plants with non-strikers. Their passage through picket lines has led to repeated clashes.

Last week, 5,000 UAW unionists recruited from all over Indiana, Kentucky, and Tennessee marched on the New Castle foundry for a "demonstration" of labor strength. Inside, 100 nonstrikers watched them with misgivings. Someone fired a shot—the parties disagree on who fired first. There was a brief exchange. Five unionists and three nonstrikers were hit. State police and later national guardsmen were mobilized to restore and maintain order.

The Indiana police seized an arsenal of weapons from workers in the foundry and union demonstrators—29 rifles, nine revolvers, 30 clubs, and 700 rounds of ammunition, the police reported. Company officials admitted guns and ammunition were flown into the foundry by helicopter during the strike, for the "protection of the property and the employees who have been threatened and whose homes have been shot into."

After the disorder, virtual martial law was clamped on New Castle. Saloons, bowling alleys, and other places where people congregate were closed. Even local high school football games were canceled.

- **Conciliation**—State and federal efforts were under way early this week to get Perfect Circle and UAW together in an agreement that would either end the strike or assure a return to orderly picketing and the resumption of contract talks.

Before, similar appeals from local, state, and federal officials had got nowhere. The strike this year is the third

in the 10 years UAW has represented Perfect Circle's 2,060 employees—260 normally in New Castle, 1,300 in Hagerstown, and 500 in two plants in Richmond, all in east central Indiana. Because of the stormy background, there is more tenseness this time.

- **Impasse**—Among the issues are a demand by UAW for a full union shop (now being sought actively by the auto union throughout its jurisdiction) and for layoff pay—to supplement unemployment compensation. Perfect Circle has said an uncompromising "no" to both. UAW also wants a raise, charging that Perfect Circle wages are below those for comparable jobs in other companies. Perfect Circle denies this, and cites its workers' \$2.17 average hourly wage for a 40-hour work week. Additionally, UAW insists on companywide negotiations and the company is equally insistent on plant negotiations pending a National Labor Relations Board decision on decertification petitions covering UAW's jurisdiction in the Richmond and Hagerstown plants.

- **Complications**—These plus some side issues—described by UAW's Secy.-Treas. Emil Mazey as asking for "a little more butter on the bread"—are the basis of what the union calls its "strike against Perfect Circle's labor relations policy." However, the issues are complicated by a personality and by political considerations.

Lothair Teetor, one-time president of Perfect Circle and chairman of its board until he resigned in October, 1953, was chosen by Sinclair Weeks as Assistant Secretary of Commerce in 1953. UAW, and CIO generally, criticized the appointment. Their criticism continued as Teetor opposed the expansion of the unemployment compensation system—a labor goal—and openly opposed the Administration's policy by favoring amendments to the Taft-Hartley Act to give states more power over labor-management relations.

Since Teetor continued to be a director of Perfect Circle, UAW increased its attacks upon him as contract talks ran into trouble. Clyde Hoffman, attorney and spokesman for the company, said that Teetor no longer had any authority in the management of the company; he also commented, once the strike began, that he "supposed" that much of the bitterness of the union attack on the company was due to Teetor.

The day after the exchange of shots, Teetor's resignation from the Dept. of Commerce post was announced to be effective Nov. 30. Weeks denied that the trouble at the Perfect Circle plant, and the UAW and CIO attacks on the Indiana industrialist, were the reasons for Teetor leaving the departmental post; Weeks said Teetor's departure had been "understood" for months. **END**

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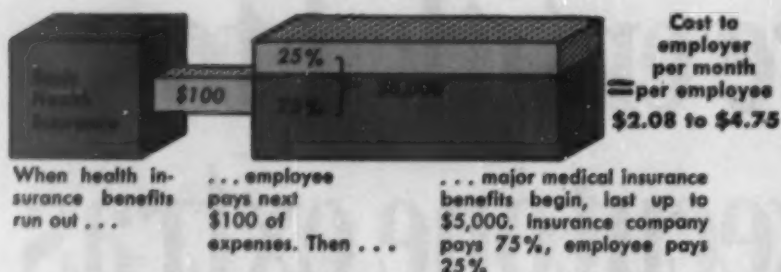
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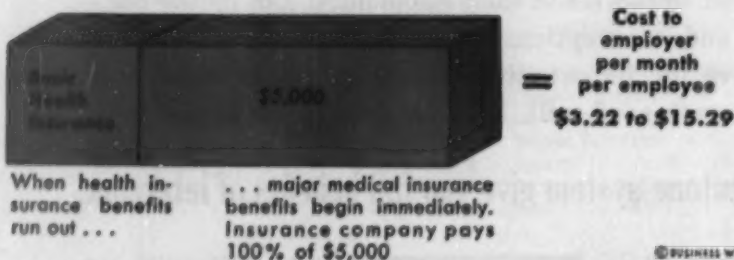
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A New Contract "Fringe"

This bargaining season labor unions are venturing—not unexpectedly—into a relatively new field of health insurance: major medical coverage (chart). Though it was never a major union demand before this year, such "catastrophe" insurance has already figured importantly in at least two big recent contracts (BW—Sep. 3 '55, p. 89). One was signed by General Electric Co., the other by Lockheed Aircraft Corp.

Union success in these two cases will be a spur to other unions casting about for new "fringes" for their members, and other companies are likely to meet up in the coming months with this demand for insurance against one of the dread diseases or serious accidents.

• **Tailor-Made**—Though major medical insurance may be a "comer" in the insurance line as well as in labor bargaining, few outside of the insurance field are very clear about just what it is. And even insurance companies are still a bit wary.

Insurance companies still underwrite major medical policies almost on a tailor-made basis. You can get almost any kind of coverage you want, but you have to be willing to pay for it.

An "average" policy doesn't seem to exist. But something like a standard does emerge from the welter of tailor-

mades. All companies, for one thing, normally require a person to be insured under a general health policy (underwritten by the company itself, or by Blue Cross or Blue Shield) before he can be eligible for major medical coverage. But, as with most of the "standard" provisions, this requirement can be waived—for a proportionately higher premium.

Most companies also include a cash deductible feature similar to deductible automobile insurance—an amount that the insured person has to pay before the insurance actually applies. Most commonly, the deduction is applied to expenses after the health insurance benefits are used up and before major medical benefits begin. Because the deduction area forms a sort of bridge or "corridor" between the two types of insurance (chart), a common type of deductible is called the "corridor" type; it calls for payment of \$100 to \$200 of medical expenses at this point by the employee himself.

• **Maximum**—The maximum coverage also varies. A common figure is \$5,000—in GE's extended medical expense program, that's the top for any one disability claim.

Another frequent provision is a so-called "co-insurance" clause. That means the insured employees pays, say,

25% of the covered expenses, the insurance company 75%. Insurance people feel this reduces malingering and "luxury" treatments. But for a higher premium, it can be waived, too.

Typically, major medical coverage pays such expenses as hospital services, doctor services, prescribed nursing care, X-ray treatment, medical supplies, blood transfusions, dental care resulting from an accident, and physiotherapy. Usually excluded are sickness or accident expenses covered by workmen's compensation, normal maternity costs, dental care not caused by an accident, any expenses not recommended by the attending physician.

• **Costs**—Until the last few years, major medical insurance was written as a rider in general health insurance programs. It covered mostly salaried employee groups such as those in the Sears Roebuck & Co. and General Motors plans (BW—Jan. 1 '55, p. 58). It's the experience under these pioneer programs that is providing the actuarial basis for figuring costs on current plans. As experience leads to more accurate computation of the required premiums, the cost tends to decline.

But it's still fairly expensive compared, say, to general health insurance. An employer paying the entire tab for 1,000 employees, all eligible for the plan, would have to shell out around \$2 to \$4.75 per month per employee. That would provide catastrophe coverage for employees, dependents as well as the employees, a \$5,000 maximum, the 75%-25% co-insurance split, and a \$100 corridor-type cash deductible provision. Though other factors enter in, these are the most significant in computing rates.

If the same employer wanted complete major medical coverage for his employees, without the cash deductible and co-insurance, he might have a hard time finding a company to write the policy. If he could find one, he'd very likely have to pay monthly premiums of about \$3.20 to more than \$15 per employee.

• **Spreading**—Insurance companies are now considering for this type of coverage some groups they would have shut the door on fast a few years ago—and unions are pressing demands to bring in some of these groups.

This, together with lowered costs, less stringent requirements, and support from outside the unions, is likely to give added impetus to this type of insurance. One boost comes from the new Secretary of Health, Education & Welfare, Marion Folsom, who calls this coverage vitally important to the worker, with only programs that would maintain a flow of income during a period of disability having higher priority. **END**

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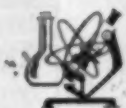
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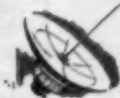
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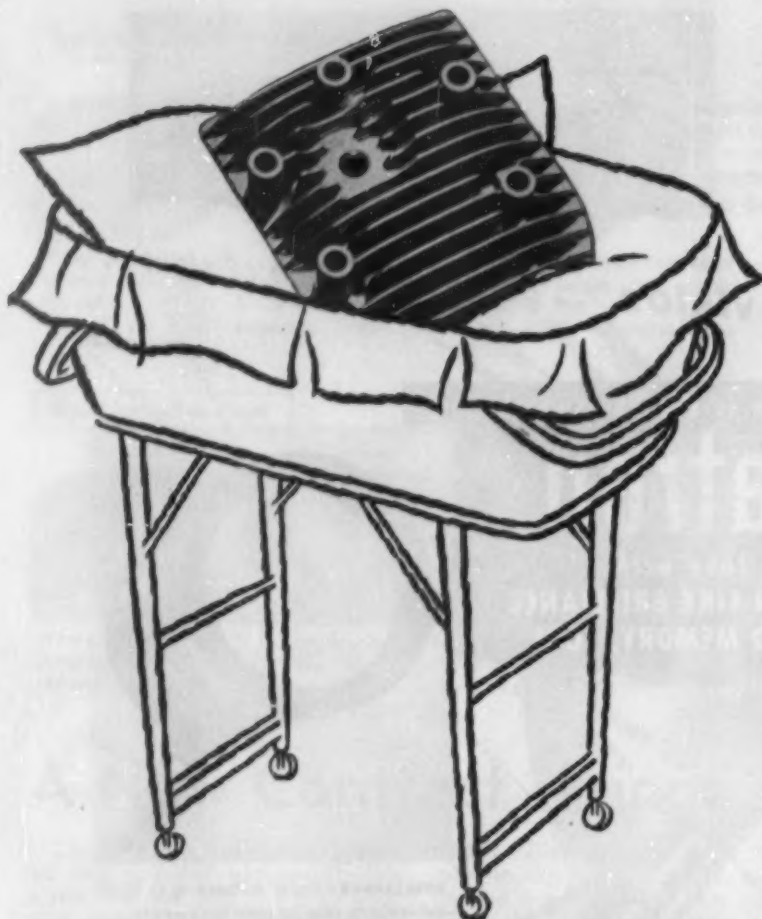
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Remington Rand, IAM climax decade of "satisfactory relations" with security and union label contracts.

Few employers had as tough a labor reputation as Remington Rand, Inc., in the late 1930s. Its Mohawk Valley Formula, developed by James H. Rand, Jr., became a highly controversial model for other employers—including steel companies. The National Labor Relations Board termed it a "strikebreaking" formula.

Two weeks ago, a decade of steadily improving labor-management relations climaxed at Remington Rand. A full union shop contract was signed covering 4,000 employees at Elmira, N. Y., represented by the International Assn. of Machinists (AFL). At the same time, Remington Rand became the first major employer in the business machines industry to sign up to use a union label on its products.

According to IAM, the agreements negotiated quietly and amicably represent "the final full acceptance of collective bargaining by Remington Rand [and] the beginning of a new era" in its Elmira plant. B. F. Anderson, vice-president in charge of manufacturing for the Remington Rand Div. of Sperry-Rand Corp., called the new union shop contract "a significant development in satisfactory relations with the IAM . . . during the past several years."

• **Long Battle**—Remington Rand workers became targets of IAM and other organizers in 1936. Although it maintained it was not against unionism per se, the company balked at an agreement covering its plants, and strikes spread through six of them. To get them settled quickly—and without any concessions—Remington Rand put into effect a nine-point pattern of strategy that later became known as the Mohawk Valley Formula because of the plant's location.

Under it, according to NLRB charges, Remington Rand—and then other employers:

(1) Took a strike vote among employees, to get a result that might be publicized as "proof" that a strike was against the workers' wishes.

(2) Labeled union leaders as "agitators" and "radicals" to minimize their influence in the community.

(3) Threatened to shut down permanently, and move to a new location, in order to stimulate the formation of local citizens' committees through which public opinion might be mobilized against the strikers.

(4) Got together a large "voluntary"



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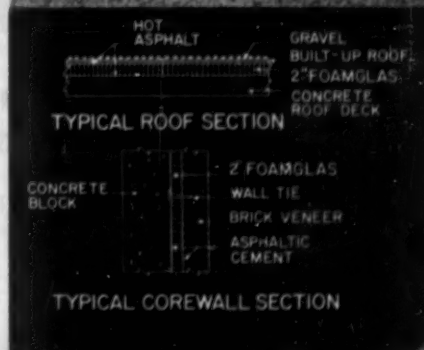
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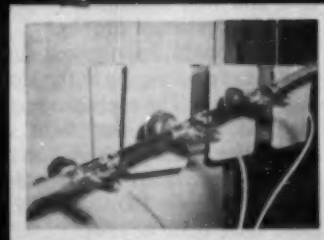
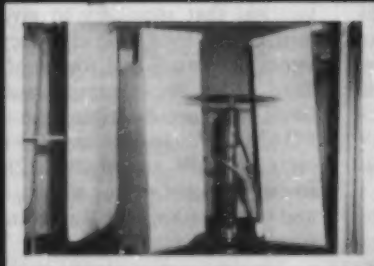
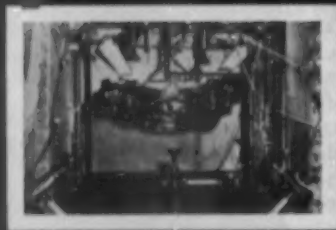
Mr. Purrington is shown on the FOAMGLAS insulated roof of Skinner's Holyoke Mill. He reports: "The unusually high strength of FOAMGLAS eliminated all possibility of damage from roof traffic. Its effectiveness has exceeded our expectations."

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police force to preserve "law and order."

(5) Emphasized the violence of pickets wherever possible.

(6) Organized a back-to-work movement, using extensive advertising on a "right to work" theme.

(7) Staged a dramatic reopening of struck plants, with workers marching into the gates with American flags.

(8) Thereafter, intensified the show of police force and the pressure by citizens' committees, thereby getting other employees back into the plant.

(9) Finally, with plants operating at near-capacity with newly hired workers or returned strikers, it suddenly stopped all publicity.

For Remington Rand, this formula worked. The concentrated opposition ended the 1936 strikes in a few weeks. The National Assn. of Manufacturers hailed Remington Rand's handling of walkouts as constructive and a "real contribution to civic dignity."

• **NLRB Criticism**—The National Labor Relations Board, then a year old, did not agree. After extended hearings, it smacked the company with a 100-page rebuke, bulky with charges of unfair labor practices.

The company, ordered to rehire 4,000 workers who lost jobs as a result of the 1936 strikes, fought back in legal actions.

The cases finally were closed in September, 1942, when a federal court backed up NLRB's orders of 1937.

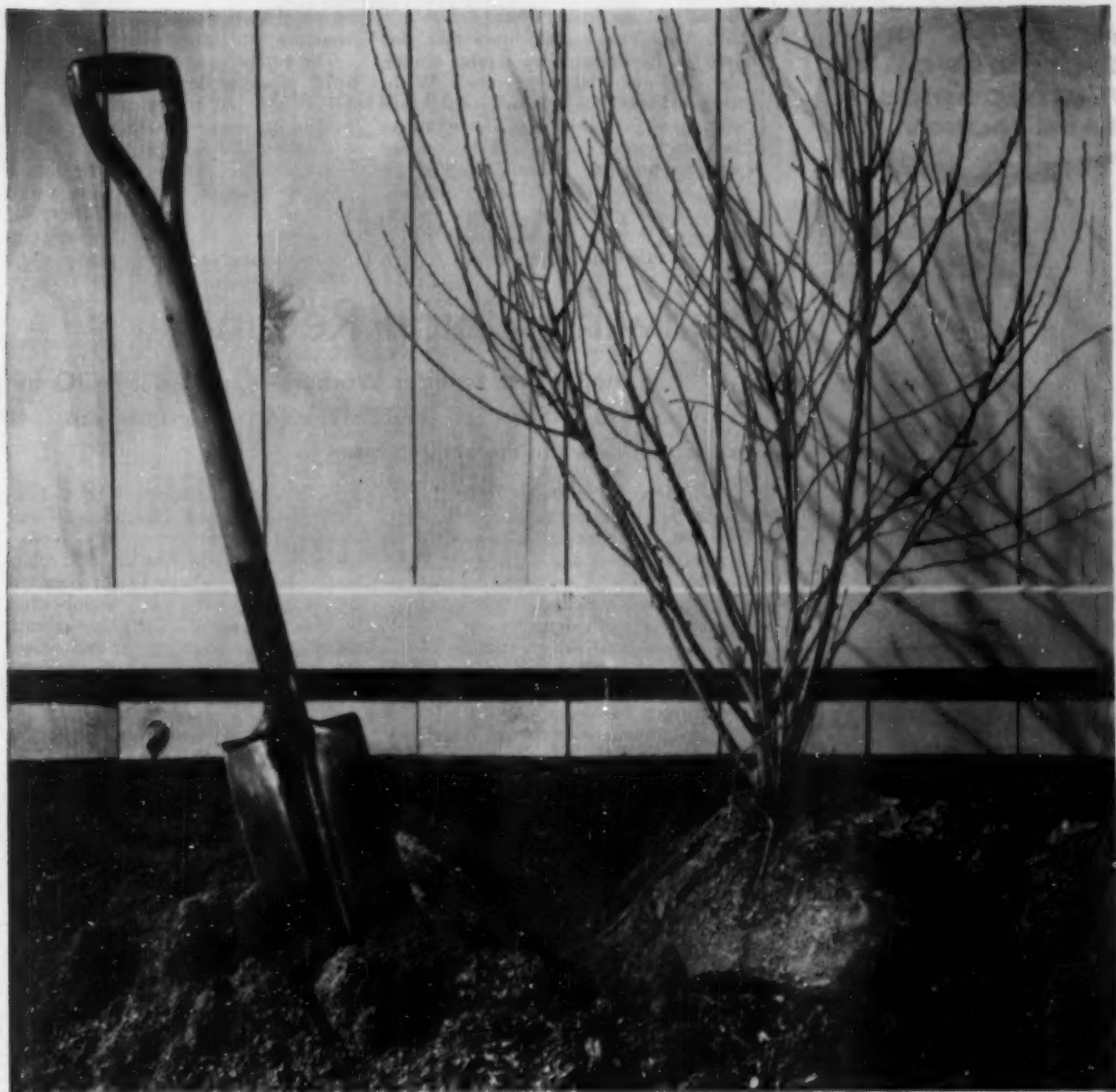
Meanwhile, union organizing had gone on, and, also in 1942, Remington Rand employees voted to be represented in bargaining by IAM. It took three more years, and three NLRB hearings, before the company signed its first contract with the machinists.

Beginning in that year, 1945, Remington Rand-IAM relations began a slow mend. Contract talks continued hard and relations were frequently tense. Strikes still occurred but there were no more serious IAM charges of company "union-smashing" tactics.

• **Full Acceptance**—Early this year, IAM began to press a union label drive nationally. It said that a check showed that "several thousand" employers—or about 85% with Machinist contracts—were eligible to use the IAM label but only about 200 were doing so. In not using it, the union said, employers are "passing up one of the least expensive and most effective sales devices in the world."

As in the case of other unions, employers who are eligible—"fair" employers who have union shop contracts—may use IAM's label for only the cost of having a die made or, if they prefer to buy decals or gummed labels, at a cost of \$1.50 per thousand.

When contract talks started with Remington Rand this year, IAM pro-



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posed that the maker of the UNIVAC and other business machines take the lead in its industry by signing union shop and union label agreements. With more than 90% of Remington Rand employees in Elmira now union members, by union count, and the union security principle already accepted in part by management there, the company agreed to go the whole way. It accepted the full union shop as part of a settlement that included pay

boosts of from 4¢ to 12¢ an hour and insurance and other fringe benefits.

The company noted that it "had resisted previous demands for a union shop," but said that this year it was "willing to modify its former position at least for the two-year period of the newly executed agreement," largely because of "what the union terms 'a new era of labor relations,'" and the great prevalence of unionism among employees in the bargaining unit.

Leftwing Union Recants

Mine, Mill & Smelter Workers—expelled by CIO for alleged Red infiltration—publicly rejects Communism. It may be a new line in leftist strategy.

Whenever a leftwing union is attacked by Congress, the Administration, business, or rightwing labor groups, its defense is almost axiomatic: It protests an invasion of Constitutional rights. The leaders meet charges with countercharges, not with denials.

This has been the pattern since the expulsion of leftwing unions from CIO six years ago for Red-domination. And the pattern has been watched closely by government experts for clues to Communist Party strategy.

Last week, there was a sudden about-face by one of the most powerful of the remaining handful of CIO-expelled unions—the International Union of Mine, Mill & Smelter Workers. Mine-Mill is the government's No. 1 target in its drive to remove Communists from control in organized labor.

In a cryptic three-point policy statement issued by its executive board, the union leaders said: "We do not believe nor do we advocate that Communism is the solution to the problems of the American working people."

• **About-Face**—The rest of the statement was a pledge of support to "our American form of government" and a renewal of the union's attack on Atty. Gen. Herbert Brownell for instituting charges against the union before the Subversive Activities Control Board. But it was the single sentence rejecting Communism for workers that intrigued observers.

Former close associates of Mine-Mill officials and experts on leftwing unions could not recall any previous statement of this kind. Mine-Mill officers have always professed their belief in democratic institutions, but have never repudiated the Communist Party nor its programs as they claimed their right to private philosophies.

• **Far Cry**—Certainly, it's a far cry from a statement made in 1949 by Maurice Travis, Mine-Mill's former secretary-treasurer and one of its top policy-

makers, at the time he signed a Taft-Hartley non-Communist affidavit—and resigned from the party to do so.

Travis, noting that he resigned reluctantly, added: "This has not been an easy step for me to take. Membership in the Communist Party has always meant to me, as a member and officer of the International Union, that I could be a better trade unionist."

Travis, now under indictment for filing a false T-H oath, quit as secretary-treasurer earlier this year and is now a Mine-Mill organizer in California. But, until the executive board issued last week's statement, there never has been a deviation from Travis' position.

• **New Strategy**—There was little disposition to take Mine-Mill's new policy on face value. But CIO officials and those close to the labor movement declined to write it off as simply a defensive maneuver. They viewed it as possibly a new line in leftist union strategy.

One reason was obvious. The statement was drawn up at the first meeting of Mine-Mill's executive board since Brownell's petition to the Subversive Board. In that petition, Justice Dept. asked the board to find Mine-Mill a Communist-infiltrated organization—which would bar it from bargaining in the nonferrous mining industry. The union now holds contracts with the industry's top companies, including Anaconda, Kennecott, American Smelting & Refining, and Phelps-Dodge.

This is the first action against a union under the Communist Control Act of 1954, and Mine-Mill officials are alarmed about the implications. As one CIO official put it: "It looks like they're running for cover."

• **Two Opinions**—Some observers watching the relationship between the Communist Party and Mine-Mill—a parallel established in the Justice Dept. petition— theorized that Mine-Mill's action was an extension of the new

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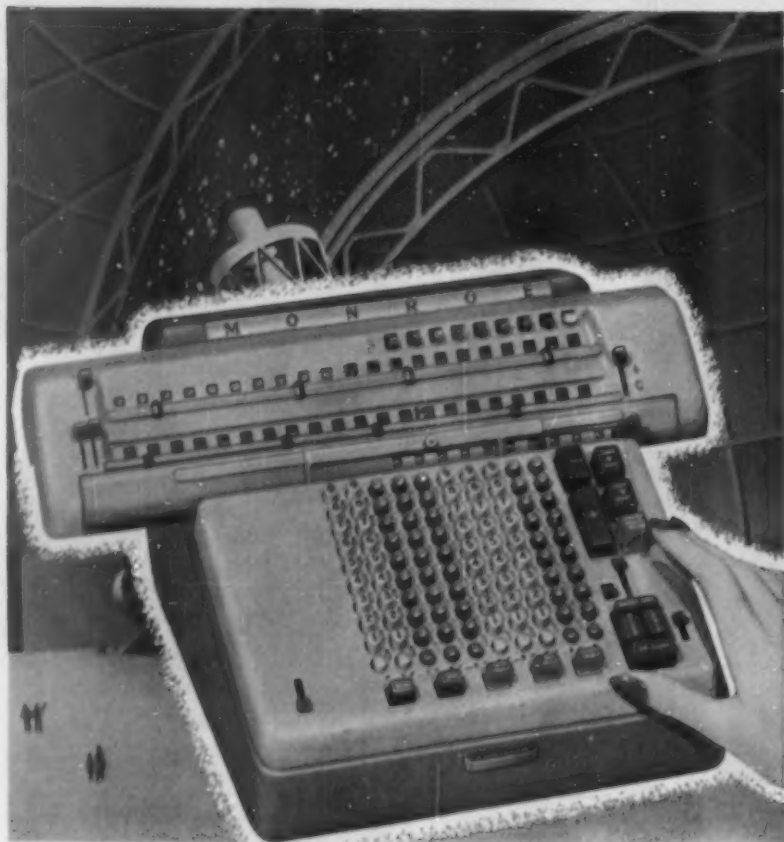
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Communist line developed at the international conference at Geneva—the smile and go-slow approach. This seemed to be discounted by the tenor of the statement. It did not hold that Communism and Democracy could live together.

There is little belief that the Mine-Mill leadership has changed its philosophy. Although Travis is no longer a top official, his associates still have firm control of the union.

CIO and AFL officials would be the first to detect any such change. For the past six months, Mine-Mill has been making quiet overtures to unions in both federations for a possible merger, talking to leaders of CIO Steelworkers, AFL Machinists, and even AFL Building Laborers on the theory that members of these unions "work on hard rock."

In all cases, the moves were rejected because of Mine-Mill's leftwing leadership. It was obvious that the union was seeking a cover from the 1954 Communist law that specifically abolishes AFL and CIO affiliates from the law's processes.

• **Softer Tone**—From the time the law was passed, the leftwing unions have softened their tone toward other labor groups. Not only Mine-Mill but the United Electrical Workers (Ind.) and other groups have sought a home in the coming merged federations—but this campaign was on before the new international atmosphere.

Now, the question is: Is Mine-Mill carrying this one big step further? Will other unions in the leftwing labor pocket follow this move?

Some headway toward respectability has been made by another Communist-dominated union, but on terms set by AFL. The AFL's Butcher Workmen absorbed the leftwing Fur & Leather Workers Union, but this merger was blocked by AFL's executive board until the butchers could expel a score of Communists from the fur union.

That cleaning-up process is about completed, but there's still some doubt about an O.K. by the AFL top command. AFL Vice-Pres. Al J. Hayes, for instance, has raised the issue about cleaning up Communist rank and file in the fur union, and Hayes is one of the AFL leaders who turned down Mine-Mill's merger request.

Mine-Mill's situation is quite different, however. With the executive board in complete control, there's little likelihood that its leaders could be expelled by other union members to achieve a merger.

That's why Mine-Mill's statement is given added weight. It's not the work of defectors, but the men in control—leaders who, according to the Justice Dept., have followed the Communist line. **END**

In Labor

• • •

Employees Accept Terms They First Struck Against

Four plants of the Doehler-Jarvis Div. of National Lead Co. resumed operations this week after Doehler's first strike since the company was established in 1908. About 6,500 production workers, represented by the United Auto Workers (CIO), returned on the basis of a settlement they rejected early last week—an estimated 19½¢ an hour "package" increase, including a deferred supplementary unemployment pay plan.

When the terms were first put before them by UAW, unionists rejected them, 2,942 to 2,763. They objected particularly to a new incentive system that provided for retiming jobs to make Doehler-Jarvis more competitive in its field. After rejecting the contract, workers quit jobs Oct. 3.

UAW officers talked of "a misunderstanding" and urged a second vote on the terms. Held late last week, it O.K.'d the settlement by a 3-to-1 margin.

• • •

Labor Briefs

Rail labor problems cleared a little more this week as the Switchmen's Union of North America and western carriers signed for 10½¢—the figure in last week's Brotherhood of Railroad Trainmen's settlement (BW—Oct. 8 '55, p132).

A strike ended at the Bendix Radio Div. of Bendix Aviation Corp., in Baltimore, after 38 days, when AFL Machinists accepted 18¢ in pay hikes over a two-year period and fringe concessions.

American Motors' contract with the United Auto Workers (CIO) is in effect after clearing its last hurdle. A holdout by Milwaukee plant workers ended this week when, at UAW urging, they ratified terms negotiated in September.



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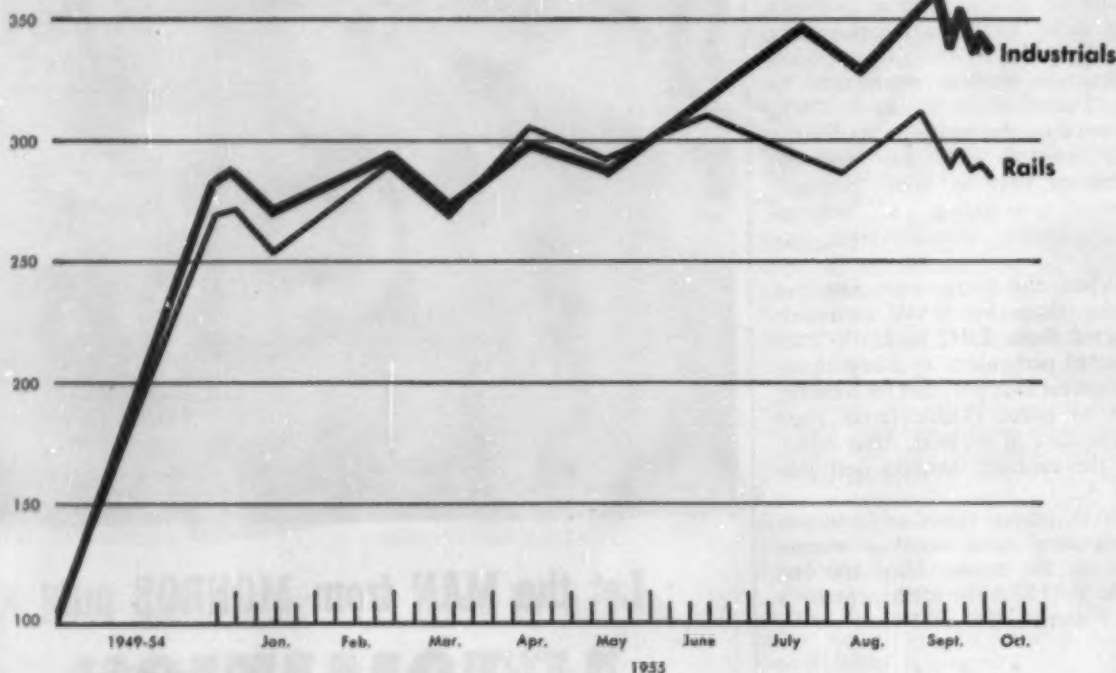


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THE 1949-55 BULL MARKET: More Suspect Than Ever

Start of Bull Market (June 13, 1949)=100
400



Data: Standard & Poor's Corp. Daily Stock Price Indexes.

© BUSINESS WEEK

And the Bulls Have Trouble . . .

. . . But it's not over yet.

That's the for-the-record opinion of Wall Streeters generally on the 1949-1955 bull market (chart), which has already broken the market's longevity record with a run of six years and four months. The Street's majority, at least when talking for public consumption, says the historic market part is far from its end, despite the shattering events of the past two weeks.

At least two of those events were enough to shake any ordinary confidence:

- The market had its most spectacular one-day price break (pointwise) since the sickening days of late 1929.
- The technical "bounce-back" rallies after the initial break were disappointingly ephemeral. More ominous still was the strength of the sell-offs that followed each rally. By early this week,

the ebb and flow had stranded Standard & Poor's daily industrial stock price index at its lowest level since early July. The rail index was even worse off, at its lowest since mid-February.

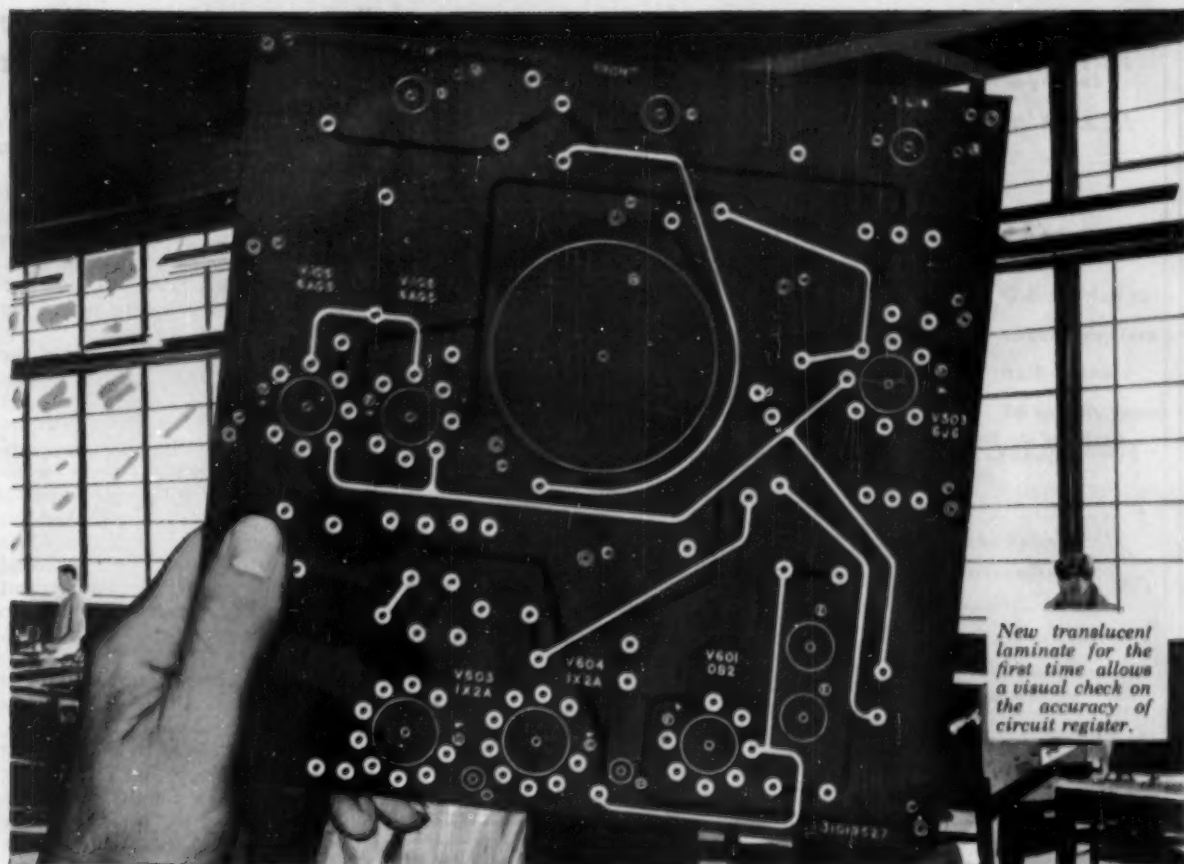
• **"... But Unbowed"**—But these heavy blows could not shake the die-hard bull majority. As one of them put it: "The bull has neither been stopped nor discouraged in his determination, but only momentarily stunned. His behavior under the blow indicates he will recover and resume his course."

These bold words and others like them ring out so strongly that you might get the idea of a unanimous faith. But you'd be wrong. With some very shallow scratching you can unearth a flock of mild dissenters, another equally large flock who scream with rage at the doctrine of "don't worry now, things are bound to get better."

• **Peptalk**—Indeed, a lot of the vehement bullishness sounds startlingly like the pep talks at a pre-game football rally. And the exhortations are coming from the same throats that a few weeks ago were telling clients that Anaconda Copper, then in the low 80s, was bound to hit 90 and maybe pass 100. (Right now, Anaconda is around 62.)

It's quite possible that there is more sand than concrete in some of the foundations of the bulls' dream castle.

A lot of the optimism is pegged to the argument that the market can't continue to ignore the coming bonanza of third- and fourth-quarter earnings reports, bumper dividends due at the yearend, and the strong likelihood of tax reductions next year. As far as they go, these arguments have solid validity. Second-half earnings will be excellent; fourth-quarter dividends, always season-



Formica Research perfects sensational new cold punching laminate

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Research, an important part of the exclusive new Formica 4-point service, has just perfected a new cold punching paper base laminate offering 1,000,000 megohms insulation resistance and valuable new translucent properties.

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change as in grades which must be heated before punching. This means that with Formica XXXP-36, you can now produce printed circuits with new and higher standards of accuracy.

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laminates . . . and (2) how perfectly the circuit on one side registers with that on the other. New XXXP-36 is ideal for terminal boards and tv insulators requiring high I. R. Formica's engineering skill can help you find new materials for new products and processes. For complete information on the new XXXP-36, or on the new "Formica-4" service, use coupon below. The Formica Co., 4660 Spring Grove Ave., Cincinnati 32, Ohio.



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"... trouble is, there are other factors that discount these strengths..."

BULLS starts on p. 58

ally the year's best, will be highly favorable; individual income taxes are apt to be cut next year, and there's a smaller chance of a cut in the corporate rates. On top of all this, there's the reinvestment demand that always springs up around the end of the year.

• **Discounted—Trouble is, there are other factors that discount these strengths.** For some time the market has been placing a very high price on dividends as such. This raises the possibility that any but the most sensational and unexpectedly high dividends have already been discounted. And this fly in the soup has a companion: Once all the fourth-quarter's good dividend news is out, no further management decision on disbursements is likely to affect the market before next April-May.

Brokers say that a great deal of the selling since Pres. Eisenhower's illness has been the cashing in of paper profits. It is reported that much more similar selling is on the way. But it hasn't yet reached the market for the simple reason that many of the profit-takers are unwilling to dump their shares at just any price of the moment. Rather, they've been trying to squeeze the last drop of profit, entering their orders at "above market" levels in the hope of catching a rally.

Of late, these tactics have not been successful. Some technicians say that if the market keeps on sliding without substantial rallies many of today's "above market" sell orders will be changed to "at the market." That could have a sharp effect in markets as thin as the past few months.

• **Institutions—**For a fortnight there has been talk of substantial institutional selling. But the National Assn. of Investment Companies says that this can't be blamed on the investment trust trade. NAIC says that on Sept. 26 and 27 (the bad break and the day after) its members sold only \$4-million worth of common shares, while buying \$8.5-million. However, an outsider could notice that for the rest of the week portfolio sales must have topped purchases, since for the full week buying was \$16.3-million and selling \$13-million.

NAIC has also dug up early figures to show that up to now mutual fund stockholders have not been stampeded into the feared rush of redemptions. The trade group says that a check of 46 open-end funds shows that on Sept. 26 and 27 sales of new shares were \$11.8-

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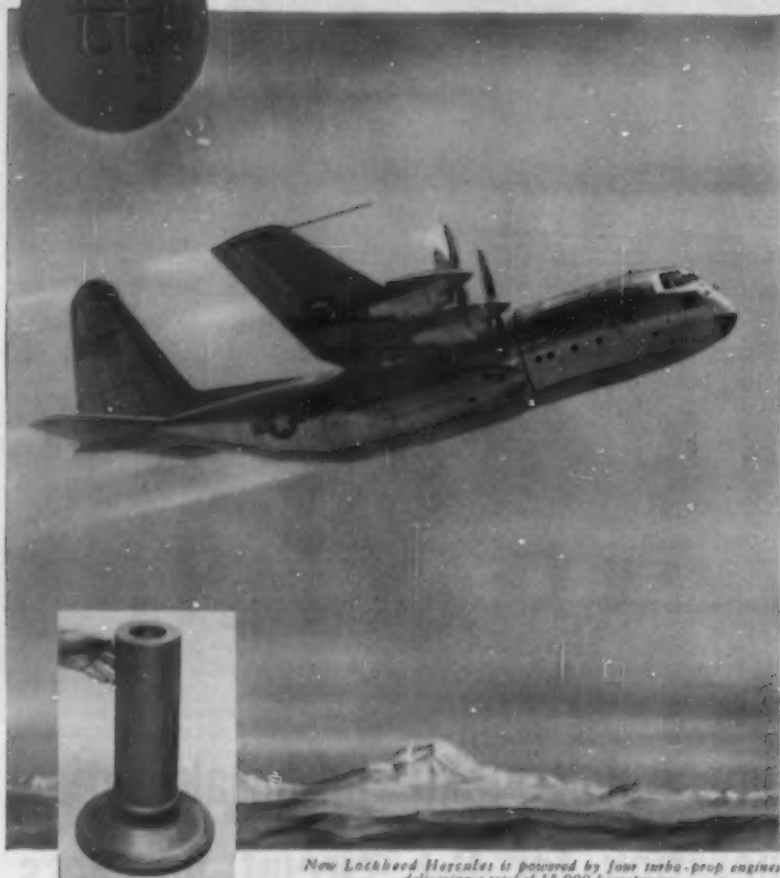


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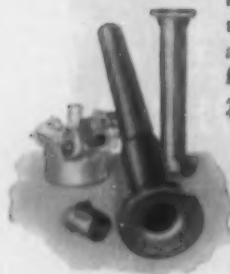


New Lockheed Hercules is powered by four turbo-prop engines delivering a total of 15,000 horsepower

Tubular upset forgings speed turbo-prop production

Forging know-how applied to this aircraft engine part by Tube Turns has led to important savings. Rejects that once showed up after expensive machining have been virtually eliminated. The part was formerly drilled and machined from solid bar stock. Non-metallic inclusions were a problem. Now Tube Turns makes the part by "tubular upsetting". Production is smoother, costs are cut.

This part is one of 23 Tube Turns' forgings used in the turbo-prop engines which power the giant Hercules. It typifies our approach to custom forgings—coordination of all phases of forging design, engineering and quality control, for maximum quality at minimum cost. Let us quote on your forged part.



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"... S&P's industrial index fell 7.4%; its rail index 8.4% . . ."

BULLS starts on p. 58

million against redemptions of only \$7.1-million. And in the three following days, new share sales were \$10.7-million and redemptions \$3-million.

Even in the face of these figures the hardshell "antitrusters" won't strike their colors. They claim it's still too early to spot the trend, and wonder how the figures would stand after a month of sharp market decline.

• **Values Down**—The recent weeks of selling have taken a toll of the asset values of the mutual funds, just as they have hit the various market indexes. For the two weeks ended Oct. 7, a random sampling of 15 trusts shows drops of 4.8% to 9.6% in their per share liquidating values. Eight of the trusts fell 7.1% or more. Over the same stretch, S&P's industrial index fell 7.4%, its rail index 8.4%.

Wall Streeters would love to know the level at which the serious shake-out will level off at least temporarily. Chartists and Dow theorists have been busy as bird dogs trying to figure out just where real resistance will develop to the current demand for cash rather than stocks. Until this week many of these technicians thought that 445-455 on the Dow-Jones industrial average would provide a strong resistance area. But Monday of this week showed they were wrong. Now there's a feeling that the average may slide to 410-420 before important buying support appears.

• **Short-Term**—A good deal of both bullish and bearish talk around the Street is currently of the short-term variety. Thus many people have a tendency to play down Eisenhower's illness as a factor both now and for the long term. Admittedly the news was a shock, but the effect, they say, would not have been so severe if the market hadn't been groping for basic equilibrium after an uninterrupted two-year rise. Again, they admit that the President's illness may well mean a Democratic victory next year, but this, they opine, doesn't have to be a catastrophe for stock prices. It might make necessary some portfolio adjustments, but it could also bring on a wave of inflation that would send many commons shooting up.

Their arguments overlook one important factor, what Moody's Stock Survey calls "... the important personal contribution Mr. Eisenhower has made to the spirit of confidence which has been the mainspring of this boom."

No one knows how much of this confidence has been lost; certainly the

keenest edge of recent optimism seems to have been dulled (page 25). The apparent loss of the President as a 1956 candidate has evoked a whole new group of national and international uncertainties for investors and traders.

• **Reserves**—As to the weapons that the average investor or trader needs to war on these uncertainties, Moody's suggests building up "buying reserves" for later profitable use as "opportunities . . . appear as the various uncertainties are faced and resolved and as the market orients and reshuffles itself toward another, more deliberate phase."

Moody's suggests that among the ways to accomplish this are selling any stocks held on margin, selling stocks in which long- or short-term losses are apparent and balancing these with sales of stocks with long-term profit accruals, and lastly, selling any shares which you can find no good reason for holding.

What's certain is that caution is advisable until today's uncertainties evaporate. One market classicist quotes the words of Rome's Horace, who told a friend, "So wisely, when you find yourself scudding before too fair a wind, take in a reef or two."

A Bank Account on the Cuff

Under First National of Boston's check-credit plan, you borrow an account that you can draw checks on, pay back into, indefinitely; now others are doing it, too.

Not too many years ago, bankers generally took a very dim view of consumer installment loans. Boston bankers, being in the front ranks of conservative banking, would hardly bother to view such loans at all.

But times have changed, and one of the biggest changes has been in bankers' attitudes toward consumer loans. Today they battle fiercely for the same business they turned away in the past.

• **Revolving Checks**—One of the most striking innovations in consumer lending was born early this year in Boston itself, and the idea is catching on fast around the country. In mid-February, the First National Bank of Boston set up a special revolving credit system, which it called First Check-Credit Account.

Basically, the system works like this: The customer establishes how much he wants to borrow through a loan application, which is checked in much the same way as a normal consumer loan application. When his application is O.K.'d, he has a pool of credit—ranging at First National from a minimum of \$120 to around \$4,800—on which he can draw.

The customer thus has a revolving fund on which he can write checks at any time, anywhere. He pays nothing to open the account, but once he starts writing checks, it costs him 1% per month on the average unpaid balance of the loan, plus a 25¢ charge for each check he writes. And once he starts drawing down his credit pool, he must start repaying at the rate of 1/4 of his maximum credit each month—that would be \$50 a month on a \$600 plan, for instance—rather than just repaying on the basis of the amount of actual cash borrowed.

Thus the customer continues to pay into the account, and continually re-

builds the amount of credit he has available.

The credit-check idea is festooned with gimmicks, too. The customer gets life insurance, sometimes accident insurance, can have a joint account, and his checks are all punch card variety.

• **Customers**—Since the Boston bank started the plan, it has had around 9,000 applications for check-credit. About 75% of those were accepted. This means a rejection rate about twice as great as on regular installment loan applications. A First National spokesman points out, "We're a little more careful on our check-credit accounts, because these customers are borrowing indefinitely."

One of the most encouraging features to First National is that a great percentage of the credit-check accounts have been opened by customers new to the bank. The check-credit idea may well prove a sufficient lure to get these new customers to open regular accounts in the bank, too.

• **Spending It**—First National has set a minimum of \$120 for its check-credit accounts, and its biggest is for \$4,800. The average so far is around \$400, and the average amount used is a little over \$300, indicating that customers don't leave much lying around idle in their credit-check accounts.

Credit checks are used mostly for vacations, tuitions, medical bills, appliances and furniture, or just for consolidating lots of little bills. Most of the accounts are being used by younger married couples. "We found that nearly 80% of our accounts were from people under 35," says a First National officer.

• **Getting Aboard**—Not long after its own system was established, First National invited some 85 officers from its correspondent banks to see how the plan worked, with the idea of setting



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INTERNATIONAL STEEL COMPANY

" . . . some of the features of the credit-check idea are causing bankers to go slow . . . "

STORY starts on p. 63

up the system—which First National has copyrighted—for them at no charge. As a result, five other banks established credit-check systems: First National Bank & Trust Co. of Oklahoma City; City National Bank & Trust Co. of Kansas City, Mo.; First National Bank in Dallas; Central Bank & Trust of Denver; and the Connecticut National Bank in Bridgeport, Conn.

All of these banks have had good initial response to the check-credit idea, and all of the systems are pretty much alike. First National Bank in Dallas however, only charges $\frac{1}{2}$ of 1% on the average unpaid balance per month. The other banks all charge 1% against the unpaid balance.

• **Caution**—Some features of the credit-check idea are causing bankers to go slow. One of these is the promotion expense involved in selling the idea to prospective customers. First National of Boston, while not revealing specific figures, says it has made a "heavy promotional investment" in publicizing its system, but believes profits will eventually wipe out this initial expense. Radio, television, billboards, newspapers, and direct mail have all been used in the campaign. But once the system is established, First National says, it can put a new loan on the books for "little more than the cost of a personal check."

Another factor banks, obviously, are watching closely is the cost of operating the new personal-credit gimmick.

Again, the initial development cost can be high, unless the bank has the personnel and equipment already in hand to handle the new accounts. Banks that are highly automated have a distinct advantage, as bookkeeping costs are pared way down through use of punch card checks and mechanical updating of accounts.

While more and more banks around the country are eying the results of these first experiments with check-credit accounts, a newer, more off beat type of credit has sprung up. In New Orleans, La., a vending machine company has put Vend-a-Check machines in 30 locations. The machine issues a \$5 check, which you get by inserting 50¢. If a store proprietor knows you, he can take the check for merchandise, or give you \$5 cash; you have to pay back in 15 days. In two months, Vend-a-Check has peddled 15,000 checks, claims to have run into only two dead-beats. **END**



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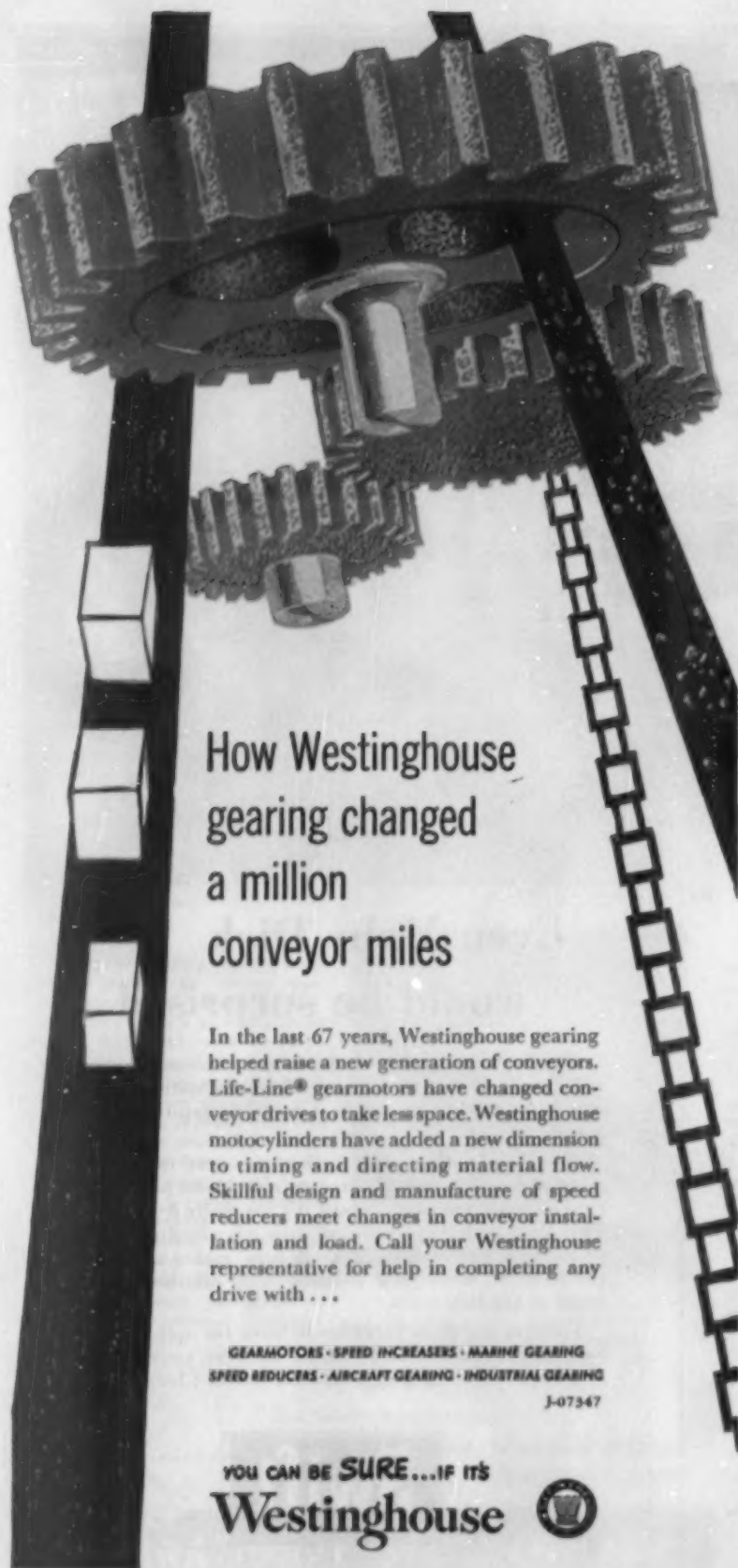
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FINANCE BRIEFS

Rationing will be the order of the day for the Treasury's new 24% tax anticipation certificates. Last week, Treasury offered \$2,750-million of the certificates to raise new cash. For them it received subscriptions totaling \$8.8-billion. So it is making a 32% allotment for all subscriptions in excess of \$100,000. The rate, considerably higher than market rates on short-term maturities, attracted a large number of commercial banks.

Peace again: National Casket Co. (BW—Sep. 17 '55, p180) didn't get involved in a proxy fight after all. Directors released handsome 1955 earnings figures and tried to fend off an "outside unidentified group" that sought control. In the end, no dissenting voice was raised as the present management was reelected—and the semiannual dividend boosted from 65¢ to \$1.50.

Interest rates keep stiffening. Federal Reserve Bank of New York notes that rates on short-term loans by New York City banks in the first 15 days of last month matched the postwar peaks of September, 1953. Long-term rates stood just below their June, 1954, highs. The average rate on borrowings from larger banks was 3.48% for the first 15 days of September, with the rate on term loans over one year hitting 3.45%.

Despite a 4% dip in federal spending, expenditures by local, state, and federal governments combined were a little higher in 1954 than 1953. The Census Bureau reported a total of \$110.5-billion in spending compared to \$109.9-billion in 1953. State and local governments boosted their spending 11%, offsetting the drop in U.S. spending.

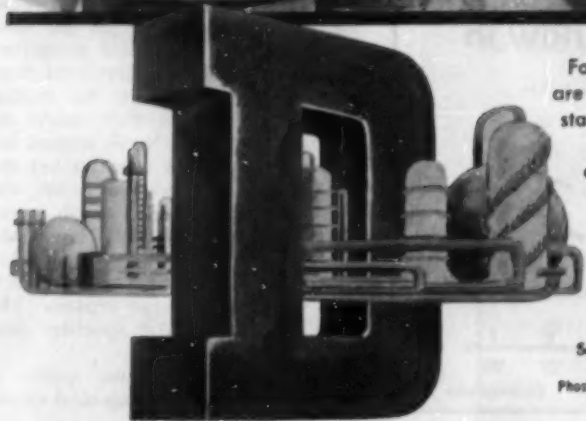
Corporate dividends paid in cash by publicly reporting companies in August were 21% lower than the same month in 1954, says the Commerce Dept. But the reason for the drop, it says, has nothing to do with earnings: In 1954, many companies shifted July tax payments into August to take advantage of the dividend tax relief that went into effect Aug. 1, 1954.

Class I railroads' earnings continue to look healthier. The Assn. of American Railroads reports August earnings of \$93-million, compared to \$65-million in 1954. For the first eight months of this year, earnings after taxes are estimated at \$582-million compared to \$349-million in 1954.

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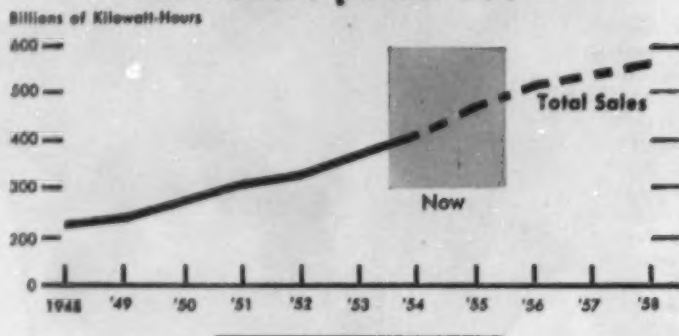
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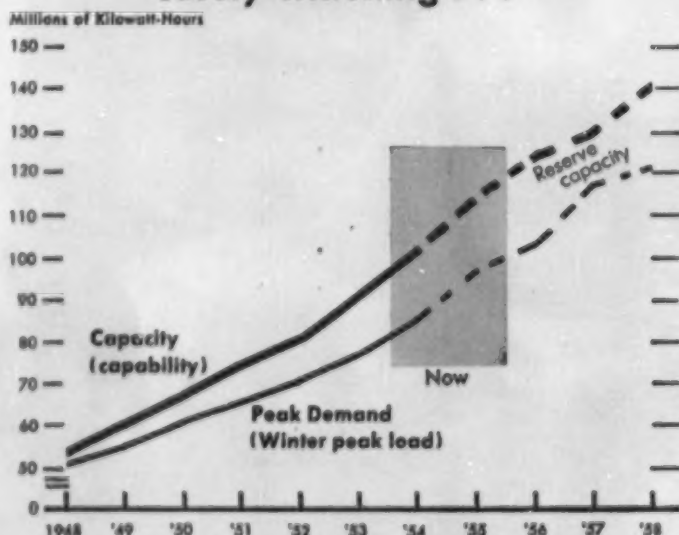
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Getting Set for a Big Future

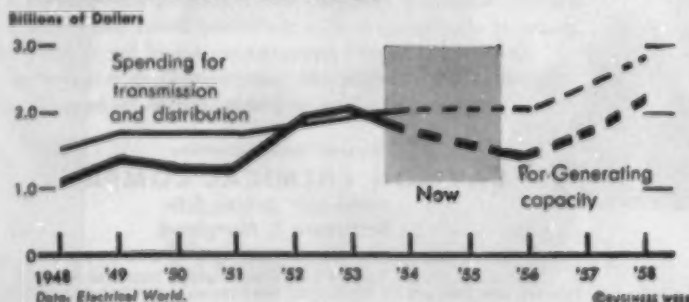
Utilities are selling more and more power . . .



But with the margin of safety widening . . .



The big push for expansion is now in distribution facilities



Electric utility companies have been on an ordering spree, their second this year. You don't have to look far to see what's behind it. Power companies have watched their sales soar this year, and the prospects for the years just ahead look every bit as bright (charts).

Future needs were doubtless the biggest factor behind the recent spurt in orders, but price worries also helped the utilities decide that now was the time to order.

• **Incentives**—Prices of copper and other metals that go into generators and other heavy electrical equipment took steep rises all through the summer, pointing to higher prices for just about everything the power companies buy.

At the same time, the need for more capacity was becoming clear. Sales of kilowatt hours kept pushing up, reaching a new all-time high in the early August heat wave as air conditioners ate up juice.

I. Bargains and Bets

Late in August, the power companies rushed to place orders, hoping to beat the inevitable price hikes—and many did get in under the wire. The big electrical equipment makers didn't announce price increases until mid-September, when they added as much as 10% to list figures for transformers and some other items of heavy apparatus. It was no across-the-board increase, but it came in enough spots to make the power companies happy about their orders.

• **Pressures**—The August rush makes this year's second wave of heavy ordering for electrical equipment. Back in January and February, the power companies also placed bigger-than-usual orders. Then, it was the bargain-counter price cuts being offered by the big suppliers that triggered the spree (BW—Feb. 19'55, p50). But prospective needs were pushing orders even then. Through most of 1954, the utilities laid back a bit on their orders for generating capacity. Needs seemed less pressing then: Sales were up but the rate of gain had slowed a bit; the utilities had just passed through a peak year for installations in 1953. But the fast pickup in the last quarter of 1954 convinced the utilities they should start shopping for more capacity. The price cuts made their appetites even sharper.

Together, 1955's two spurts in orders will start to push up total spend-



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ing for installed generating capacity by 1957. Since the lead time for the biggest and most costly of the equipment is between 18 and 24 months, the full impact won't be felt until 1958. Then, power companies will spend about \$2.3-billion on generating installations. This will be above the previous record of \$2.1-billion in 1953. Hold-offs in placing orders in 1954 meant a decline in actual spending for generating installations this year. This slide will continue into next year, when spending for generating equipment will reach bottom at \$1.5-billion.

II. The Big Push

While spending for generating installations has followed a wavy course over the last eight years, spending for transmission and distribution has gone only one way—up. Take out the two peak years of generating spending—1952 and 1953—and you'll find that the power companies have been pumping more dollars into feed lines—heavier transmission lines, more towers and poles—than into generating capacity.

Not only have the power companies' customers been demanding more electricity, but they have also been moving to the suburbs, building around 1-million new homes a year, turning country crossroads into \$1-million shopping centers. All this called for more generating capacity, but it also meant that the power sellers had to unroll feed lines at an even faster clip just to keep up with their customers.

And there's no end in sight. This year, the utilities will spend \$2.2-billion on feeder equipment. By 1958, that budget will have grown to \$2.8-billion. Through the years between, they'll continue to be big spenders for equipment.

• **Eyes Ahead**—Is all the expense justified? The utilities think so. They can point to a 16% gain in sales so far this year. Of course, this is a rise from 1954's sales, which were held back somewhat by the general business downturn. But even if you discount for this, the rise is still impressive.

Looking to the future, the utilities think demand could easily rise about 8% a year. It might even grow a little faster in some years, but over-all sales of electrical power should double about every 10 years.

Here's what is behind these growth predictions. Residential sales, for instance, will probably quadruple by 1970. The industry has been picking up about 1-million residential customers a year and expects to keep on as population rises. Old customers have been moving into bigger houses and buying more electrical appliances.

Industrial sales will just about double by 1970. Power for atomic energy in-



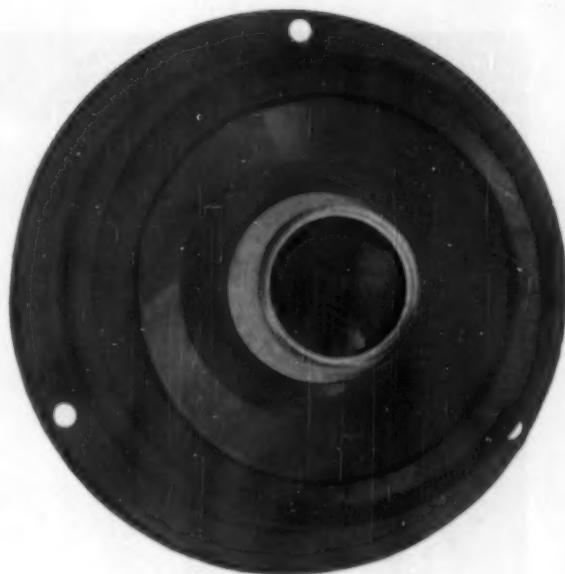
Air Conditioner Panel



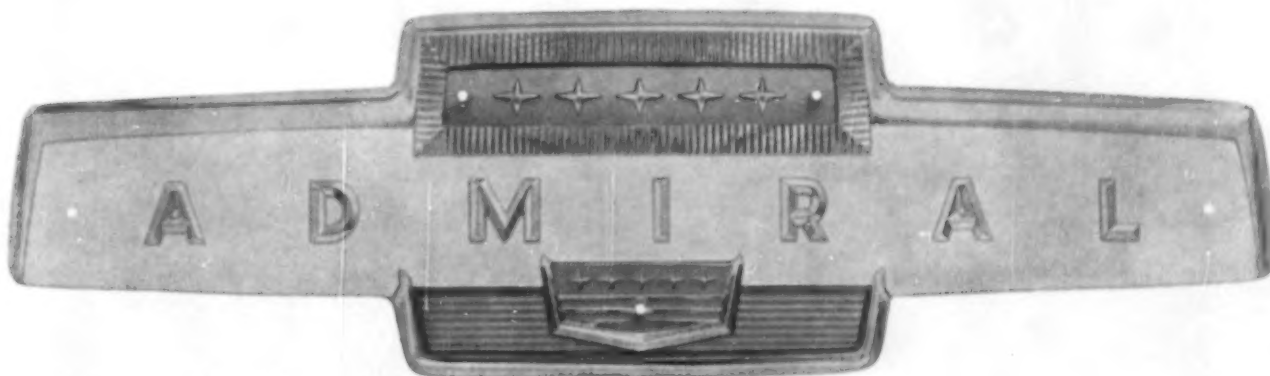
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stallations has been giving hefty boosts to the total for some years now. This year, AEC will take 47-billion kilowatt hours. As late as 1952 AEC took only 6.7-billion kwh. This demand will rise to about 56-billion kwh. next year, and then level off, according to best guesses. But AEC will still be taking big jags of juice right through 1970.

Private industry continues to use more electrical power. More interest in automation (BW-Oct.1'55,p74) is just one of the many reasons for growth here.

The spectacular growth of the light metals—aluminum and magnesium—is also boosting industrial uses of electricity. This year, with aluminum production at 1.6-million tons and magnesium at 60-thousand tons, 29-billion kwh. will be used in their production. By 1970, if present growth trends continue, these two metals will be taking twice their present annual totals of electric energy.

By then, too, industry will be supplying less of its power needs internally. This means that industry will be shopping for more power from the utilities.

And, commercial sales of electricity will most likely triple by 1970. Greater use of air conditioning in offices and stores, improved lighting, and more electrical office machines will just about double the average commercial customer's energy use. These added de-



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Sweden has struck the rationing chains from its drinkers, but the shackles have been clamped onto the liquor trade's advertising departments, which are flatly forbidden to plug their products. In Stockholm, this big sign clarioning the virtues of a vermouth had to come down. But Swedes, if they happen to know what liquor is, can now get all they want.

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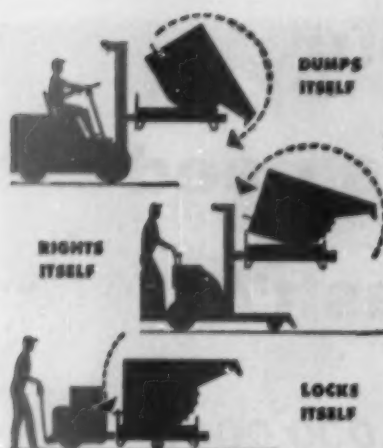
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WHEN BUSINESS MEN WANT BUSINESS
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mands plus those that will come about continued growth in numbers, show that by 1970 commercial customers will want about three times as much power.

III. Margin for Error

If there is a shadow on the prospects for the power companies, it is cast by the widening gap between capacity for generating power and the peak load requirements (chart, page 70). Of course, some margin of safety is necessary. You need reserve capacity to insure against breakdowns. But the margin between peak use and capacity has grown from between 5% and 9% in the

early postwar years to around 20%. It will most likely continue to widen a little, going to 22% by 1970.

• **Less Than Before**—This will still be below the 25% to 30% margin of the 1930s, but many power companies may decide that they can get by with a little less reserve capacity. This, of course, would mean less spending for heavy equipment.

Some industry men say a 15% to 20% margin is not too high. The average size of the generating unit installed in the postwar period is just about double that of earlier years. This means that, if something goes wrong, utilities must have just that much more stand-by equipment.

Comeback for Supply Controls

Production boom creates shortages, bringing a sudden return to priorities to get materials for defense and AEC programs.

Thousands of companies are using government priorities and directives once more. Materials controls, almost forgotten since the Korean armistice, are becoming important again.

It's all because the continuing boom in U.S. industrial production is putting the squeeze on supplies. Even companies with Defense Dept. and Atomic Energy Commission contracts or subcontracts are feeling the pinch. Under the Defense Production Act, these companies are authorized to call on Washington for help in procuring critical materials and equipment. Lately their calls have become much more frenzied.

• **Priorities**—Over the past six months, the Commerce Dept.'s Business & Defense Services Administration has issued 3,716 DX priority-ratings and directives—848 more than were issued in the same period last year—to help defense firms buy materials.

For the most part, the companies that need aid are in aircraft, guided missile, and electronic production. That's not surprising since these categories now make up the bulk of the defense production programs. The tightest materials and equipment for defense producers are high-alloy metals, heavy power equipment, electronics gear, scientific instruments, general components, and machine tools such as large milling machines and jig-boring, grinding, and milling machines. In general, these are the critical items for most industrial consumers.

The DX is a special rating granted military and atomic contractors and their subs on top-priority projects when their suppliers' order boards are already filled with orders from other

defense customers. Most defense contractors and subs automatically get preference ratings to be used on purchase orders for materials needed to fill the defense contract. The DX priority outrates this conventional preference rating.

• **Last Resort**—If contractors are still unable to buy what's needed with the use of a DX priority, BSDA issues a special directive, ordering a supplier to deliver required material to a defense project by a specific date.

In some cases, companies in so-called "direct defense-supporting" industries can also get such special assistance. For example, the Army would request BSDA to issue special priorities for a water supply system that's expanding facilities to service a neighboring military installation. In all cases of this type, the company would need the "sponsorship" of a military service, AEC, or BSDA to obtain a priority rating.

On BSDA's books there are 34 specific defense programs for which priority assistance is authorized. Among them are atomic plant construction, aircraft manufacture, tank production, electric utilities supplying an atomic project.

• **Holding Down**—BSDA tries to keep the number of priority cases to a minimum. Says one official: "We grant priorities only to prevent delay in the completion on time of an approved domestic or foreign production or construction program of great importance to defense."

During the past year, BSDA has issued 6,155 DX-ratings and special directives representing \$142.7-million worth of defense business. **END**

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Petrochemicals: Where the Growth



1. PLASTICS WILL GROW FASTEST.

Soon, 20% of all petrochemicals may go into plastics. Polyethylene will lead the way. Its output should triple by 1960. Half-a-dozen big names now talk about "super" polyethylene. In a week or so, another will get into the picture. W. R. Grace & Co. is ready to put up \$18-million to get into "super polyethylene."

2. FIBERS WILL TAKE A SLOWER PACE.

After a phenomenal start—a sixfold increase in production in the past 10 years—the synthetic fibers will go slower now. But they may have 30% of the market by the early 1960s.



3. BUT AMMONIA IS STILL THE GIANT.

The big use here is on the farm: fertilizers, pesticides, soil conditioners. It's not news any more when somebody builds a new ammonia plant. They're going up every day.



For years, the petroleum industry was happy to reach into the earth for all the crude it could get, sell it to people to burn as fuel.

Today, many in the industry are conscience stricken over such waste of a valuable resource. The chemical industry has even stronger feelings. Leland I. Doan, president of Dow Chemical Co., says, "Give us an equally effective and more economical source of heat and energy—solar, nuclear, or something not now even thought of—and we will stop burning our petroleum resources. Petroleum itself is much too valuable to be burned."

Of course, it will be years—maybe decades—before we can afford to stop using petroleum as fuel. All but a small portion of our annual production will continue to go to supply energy.

• **\$3.2-Billion Industry**—That small portion by itself—only about one barrel in every 50—is enough to support a \$3.2-billion industry. That industry is petrochemicals—based on the processing of hydrocarbons that are present in petroleum and natural gas.

Only a few years ago, it was but a tiny speck within its bigger family, the chemical industry. In 1925, one company made 75 tons of petrochemicals; but last year 101 companies turned out 134-million tons—and petrochemicals accounted for about 26.5-billion lb. of the chemical industry's total output of 114.6-billion lb.

But 1954 was a bad year for petrochemicals, by industry standards. It increased by only 4.7% over 1953. This year, the experts think, petrochemicals will begin to hit their stride. Some optimists predict that the year's total output will reach 30-billion lb., and that the industry will continue to follow its earlier pattern of doubling its production every five years. Figured on that rosy basis, by 1960 about 50% of all chemicals will be petrochemical.

• **Pessimists**—Some oil companies disagree with these predictions. Says one large eastern oil company official, "New plants are not going up fast enough to double today's output by 1960." But nobody doubts that there will be rapid growth. The argument only comes when it gets down to how rapid.

1. Three Happy Families

What can you do with a petrochemical? Of course, the answer depends upon which of three kinds you're talk-

Shows

ing about. There are some half-a-million raw materials and products classified as petrochemicals. They range from synthetic fibers to synthetic farm fertilizers, from synthetic rubber to polyethylene.

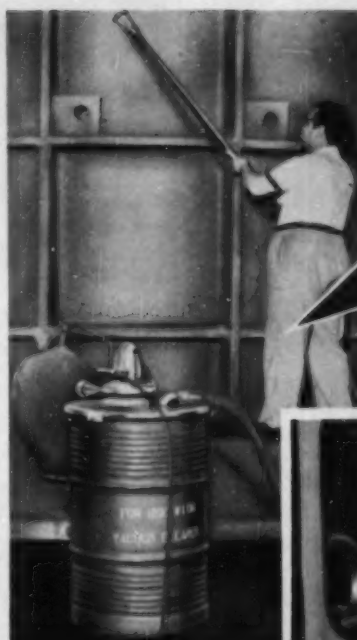
All of these stem from one of three main families: the aliphatics, aromatics, and inorganics. By far the richest of the lot are the aliphatics. Last year, they brought in almost all of the money that came into the petrochemicals pocketbook—\$2.74-billion. The other two—aromatics and inorganics—brought in a little more than one-tenth that much.

- **Aliphatics**—When you look closely into the aliphatic family, things get pretty confusing, because there are so many groups with unfamiliar names. But the end products that come from those groups are more familiar. From one group, for example, you can get polyethylene; from another, you can get the basic ingredient for many of the synthetic detergents—Tide, Vel, Surf; from still another comes one of the major raw materials for synthetic rubber manufacture. In technical language, you can say that the aliphatics are the family of straight chain hydrocarbons, and that just about every aliphatic chemical is derived from a petroleum product.

- **Aromatics**—The aromatic family is not that way. Only about 40% of the aromatics produced in the U.S. are derived from petroleum. Styrene is an aromatic. Rubber companies use it—along with butadiene, which is an aliphatic—to make tires. These two petrochemicals—styrene and butadiene—have taken such a hold on the auto tire that there is scarcely any natural rubber in it any more. Most tire rubber is now synthetic—better than 90%.

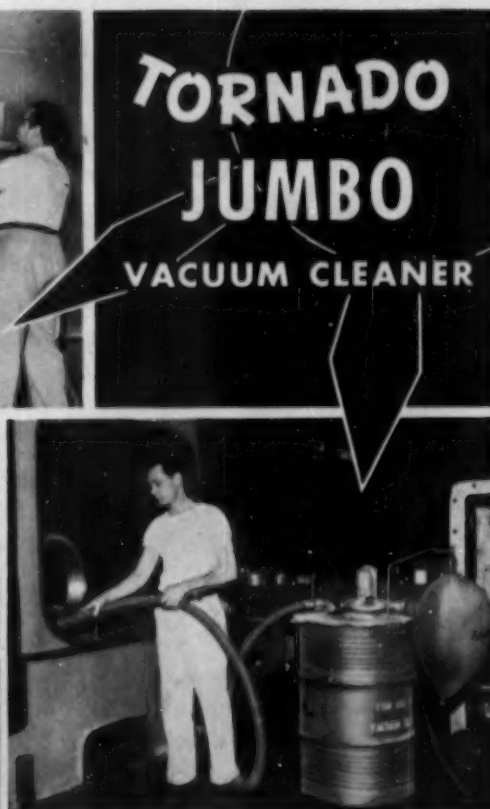
The aromatic family has little more to offer than styrene. Of course, there is toluene, which is used in the manufacture of explosives, and xylene, an important raw material in the manufacture of certain synthetic fibers. But when you've run through those, you've just about covered the aromatics.

- **Inorganics**—The inorganics—the third family of petrochemicals—are usually made from natural gas. Two well-known products are made from inorganics: carbon black, which, again, is an important material in tire manufacture; ammonia, which is probably the largest volume petrochemical of all. Scarcely a farm in the U.S. uses organic fertilizers to any extent any



Loosening and removing scale from a large weldment after heat treating.

Removing oil and chips from machined casting.



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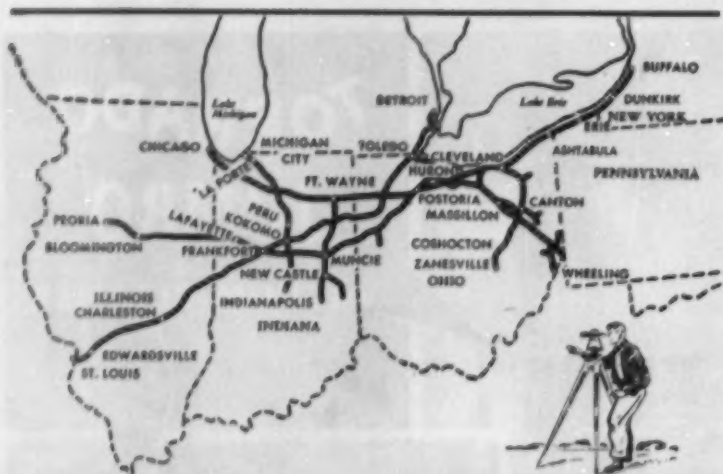
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more. Chemicals have taken over, mainly because they are more plentiful and because they can provide the farmer with a good yield.

II. Where Are They Going?

Most forecasters believe that the aliphatic family will more than double its present size by 1960—to 40-billion lb. a year. The aromatics, they figure, will move from 3.2-billion lb. to around 5-billion lb., and the inorganics from 8.8-billion lb. to 15-billion lb.

• **Plastics**—Polyethylene, probably the most glamorous member of the aliphatic family, is expected to lead the way, tripling its output by 1960, when the industry should be turning out more than 600-million lb. of polyethylene a year. Privately, some observers wonder what we can possibly do with all that polyethylene.

The answer might be simply that new kinds of polyethylene are likely to come along. Today, polyethylene is known as the "squeeze bottle" plastic. But one new type is here already: a stronger, less pliable polyethylene that stands up under much higher temperatures. Such developments as this one may open new areas for the plastic. Hercules Powder Co. will build a \$10-million plant (page 120) to produce this plastic; other companies made moves in the same direction several months ago (BW-May 14 '55, p. 48). Now, W. R. Grace & Co. indicates that soon it will get in too. Grace will build an \$18-million plant, though it is still undecided about its location.

The epoxy resins, another group of plastics that are mostly petrochemical, also are expected to move fast within the next five years. By 1960, it is estimated that epoxies will reach a production figure of better than 80-million lb. a year. Today, about 24-million lb. are produced annually. Epoxies are supposed to have superior qualities as coatings and adhesives, because they resist acids and alkalis. Also, they can be permanently hardened without heat.

• **Synthetic Rubber**—Here is a market for petrochemicals that is bound to grow. The Far East is likely to produce no more natural rubber five years from now than it is producing at the present time—about 1.8-million tons per year. The hungry tire industry will need a lot more butadiene and styrene to meet its estimated growth. By 1960, it seems likely that synthetic rubber output will reach 900,000 tons, up nearly 50% from current production.

• **Fibers**—The synthetic fibers hold a big, but not dominant, share of the U. S. fiber market. After a fast start—a sixfold production increase in 10 years—the synthetic fibers now hold about one-quarter of the market: about 8 lb. per capita per year, against 33 lb.

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The BUBBLE and the world of Mr. Jones

This is the bubble—one of the millions upon millions—that is formed by the electrolysis of brine inside the famed Hooker Cell . . . a bubble that has brought into being whole hosts of chemicals to transform the world of Mr. Jones.

The bubble may be of hydrogen or of chlorine which, when released from the brine, leaves caustic soda. Each of these three products is of vast chemical importance. The chlorine bubbles alone that rise from Hooker Type Cells unite to form more than 40% of the country's supply of that chemical.

But what of the part that these basic chemicals play in Mr. Jones' world?

From morning until night, almost

everything he touches, eats or wears is dependent for some of its qualities upon one or more of these chemicals or the hundred Hooker Chemicals derived from them. The water he drinks is purified by chlorine. The plastic cup that holds it has chlorine as a basic ingredient. The shortening in his breakfast doughnut has been hydrogen treated. The fruits and vegetables he eats, and the woollens with which he surrounds himself, are protected against pests with chlorine-based insecticides. Many of the more than one hundred Hooker Chemicals derived from these three are used in the production of synthetic fibers, in dyes, in medicines, in paints, in the preparation of his food. The

paper he reads and the paper upon which he writes his thoughts have been treated with either caustic or chlorine. The novocain the dentist uses in treating his tooth is derived from Hooker Chemicals. And finally, the sheets between which he retires, are finer, smoother, because of caustic treatment.

From Hooker Cells, row upon row of them in the three Hooker plants, and in licensed installations in 38 plants throughout the world, comes the bubbling birth of new products and new life for old products . . . a story of industrial accomplishment that parallels the fifty years of research, development, and growth of Hooker Chemicals.

1905—Half a Century of Chemicals

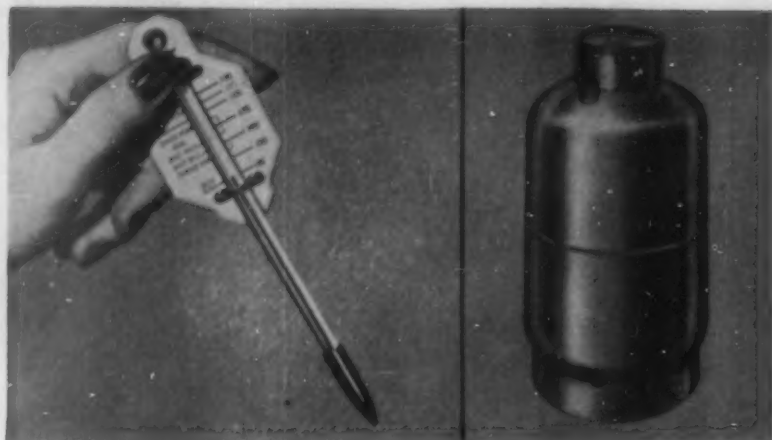
From the Salt of the Earth—1955

HOOKER ELECTROCHEMICAL COMPANY

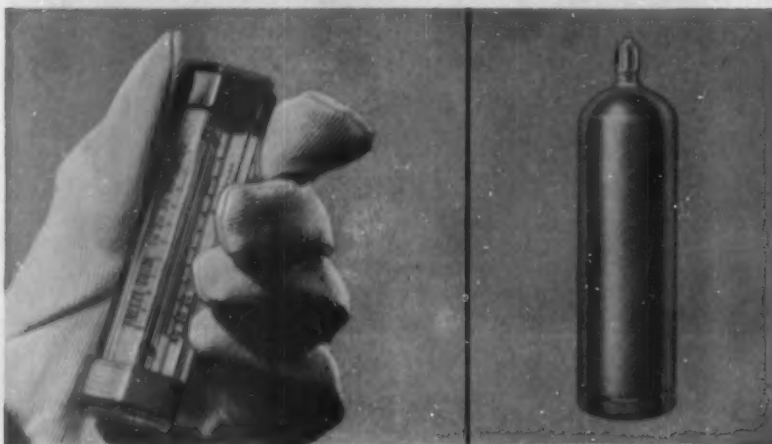
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The LP-gas dealer provides propane gas (bottled gas) for cooking, home heating and hot water heating in this big propane cylinder.



A refrigeration supply house services the meat packing plant with refrigerant gas shipped in this 150-pound anhydrous ammonia cylinder.

Roast beef, rare... or a quick freeze... Hackney cylinders stand behind the scene

Wherever compressed gases are put to work in home or industry, Hackney lightweight cylinders confine the gases safely—are easy to handle—economical to haul. Oxygen for the diver, anesthetic for the operating room, acetylene for the welding torch—these are other everyday uses for Hackney compressed gas cylinders.

Seamless Hackney cylinders, and two-piece models with only one girth weld, are deep drawn to assure uniform wall thickness and extra smooth surfaces. Heat treated for maximum strength. Made in many types and sizes to meet the needs of compressed gas producers, shippers and users. Write for details.

Pressed Steel Tank Company

Manufacturer of Hackney Products

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CONTAINERS AND PRESSURE VESSELS FOR GASES, LIQUIDS AND SOLIDS

for all fibers. Du Pont, leader in the synthetic fiber field, looks for a slight gain for the synthetic fibers in the next five years—perhaps to 30% of the market, against today's 25% share. Says du Pont, "We feel fairly confident that nylon and Dacron can double their present share, but are not prepared to go beyond that."

• **Ammonia**—It's not even news when a new anhydrous ammonia plant goes into production. Right now, there are 35 operating in the U. S., and 20 more in construction or planned.

American Cyanamid Co., one of the major producers of chemical fertilizers, estimates that only about 2% of the U.S. farm acreage is now dependent upon organic fertilizers. The rest has swung to the synthetics.

Other agricultural chemicals are growing fast also. Farmers now spend about \$450-million a year for such products as pesticides and soil conditioners, many of which are derived from petroleum.

But all petrochemicals have not strayed away from petroleum's biggest market—the family car. Some get back in, as additives for liquid fuels and lubricating oils. This year, better than 500-million lb. of additives will get into auto engines. Much of this is petrochemical.

III. Mergers

Where do petrochemicals belong? Are they mostly petro, or mostly chemical? Petrochemicals are attracting big names from both industries. From chemicals, such names as: Monsanto, Dow, Olin-Mathieson, American Cyanamid. From petroleum: The Texas Co., Gulf, Standard Oil (N. J.), Cities Service Co.

Some of these companies are getting together. The most recent was last month's merger of Monsanto Chemical Co.—a big consumer of petrochemicals, a big producer of chemicals—and Lion Oil Co.—a big producer of petrochemicals (BW—Jul. 30 '55, p. 46). Monsanto's president, Charles A. Thomas, pointed up the logic of such a deal: "More than half of Monsanto's raw materials are products which can be or are produced from petroleum or natural gas."

• **Prophet**—Petroleum Processing magazine, a McGraw-Hill publication, foresees a change in refining of crude oil. Says the magazine, "The manufacture of petrochemical crudes . . . by oil companies will dovetail more closely with their straight refining operations as time goes on."

On merger, it says, "Coming years will see more integration of the manufacturing and selling of petrochemicals, through expansions, mergers and other forms of tieups between oil and chemical concerns." **END**

JACK & HEINTZ

Saves \$15.84
per hour...



Jack & Heintz Inc. silver brazes over 25 different parts on this 15 KW, 10,000 cycle TOCCO machine.

with TOCCO* Induction Brazing

Brazing Costs Down

When Jack & Heintz engineers switched from torch brazing to automatic induction, brazing cost of these inverter brush mounts fell from \$.05 to \$.006 each—a reduction of 83% in direct labor costs alone! Additional savings result because less cleaning is required after TOCCO, and fuel costs are much lower, too.

Brazing Production Up

While costs dropped, production on the part zoomed—from 40 to 360 brazed assemblies per hour. Furthermore, rejects and scrap, formerly high, are now negligible.

Versatility

The part shown is just one of over 25 parts, large and small, which alert J & H engineers have converted from old-fashioned brazing methods to modern, automatic TOCCO. Overall brazing costs (TOCCO brazing versus former methods used) are down 75%—brazing speed, up 100%.

* * *

If the manufacture of *your* product involves brazing, heat-treating, forging or melting of ferrous or non-ferrous metals, don't overlook TOCCO as a sound method of increasing production, improving product quality and slashing costs.

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Forest Evashevski

Forest Evashevski
Head Football Coach, State University of Iowa

"A stadium full of cheering fans means a lot to a football team and their coach. Iowa fans come from all corners of the state to back our ball club. Their spirit and loyalty make my job a pleasure. Even when we had a poor season, the Iowa stadium was nearly sold out for every game.

"You see that spirit in other places, too. I've coached in a number of states, and I feel that Iowa leads them all in pulling together for community progress.

"Iowa is a wonderful place to raise a family. Our neighbors are friendly, genuine people who made us feel at home the day we moved in. With four boys and a girl at home, that counts as another big reason why I like to coach in Iowa."

The spirit and loyalty Coach Evashevski mentions is an important consideration for business management. Iowans carry these qualities into their jobs. Their will to work and pride in accomplishment make for good employee-management relations. If you're thinking of a move, write to the Iowa Development Commission for information on the characteristics of Iowa's labor force.



IOWA

DEVELOPMENT COMMISSION

304 Jewett Bldg. • Des Moines 9, Iowa

In Production

Detergent Made From Sugar

Claims to Sweeten Housework

Your wife might wash the dishes with sugar one of these days.

This week, at the American Oil Chemists' Society meeting in Philadelphia, Foster D. Snell, Inc., said it had uncovered a way to make detergents from sugar. Lloyd Osipow, the research man at Snell who developed the process, says that his sugar detergent can be made for 13¢ a pound, slightly less than it costs to produce most detergents today.

But the real advantage of the new detergent, says Snell, is that it does not irritate the skin. It is odorless, tasteless, nontoxic.

Snell has been at work on the process for some time, under a grant from the Sugar Research Foundation. A year ago, it could produce a detergent, by reacting sugar with tallow. But conversion of the sugar was only fair—about 50%.

Now, Snell reacts sugar with the fatty acid ester of a volatile alcohol in a solvent. Conversion of sugar is good—about 90%.

Already, two organizations are working out licensing agreements with the Sugar Research Foundation. One is in Mexico, the other in Brazil. The process is a natural for such countries, for they are short on petrochemical resources, the basic materials in present-day detergents.

Machines Speed Bread Wrapping,

Feed Rolls Into the Pan

Recipe for tomorrow's bakery: Heaping cups of automation, and just a pinch of atomic energy.

Last week in Atlantic City, American Machine & Foundry Co. showed off some of the devices that may soon bring big changes to the baking industry. One is a high-speed machine for wrapping bread. With buttons, you can make the machine wrap packages that range in length from 6 in. to 17 in. By itself, the machine calculates package height, knows where to slap on the sealing labels.

Another AMF machine feeds rolls into a pan automatically, at rates up to 250 per minute. Most bakeries do this by hand now.

AMF showed how atomic energy may someday be used in the baking industry in its display of irradiated bakery products. Also, it displayed a device for handling the radioactive materials that would provide the radiation. AMF is already in production with this device, though it will probably be used in industries other than baking for some time to come.

Aluminum in Any Basic Color

Now Possible, Says Alcoa

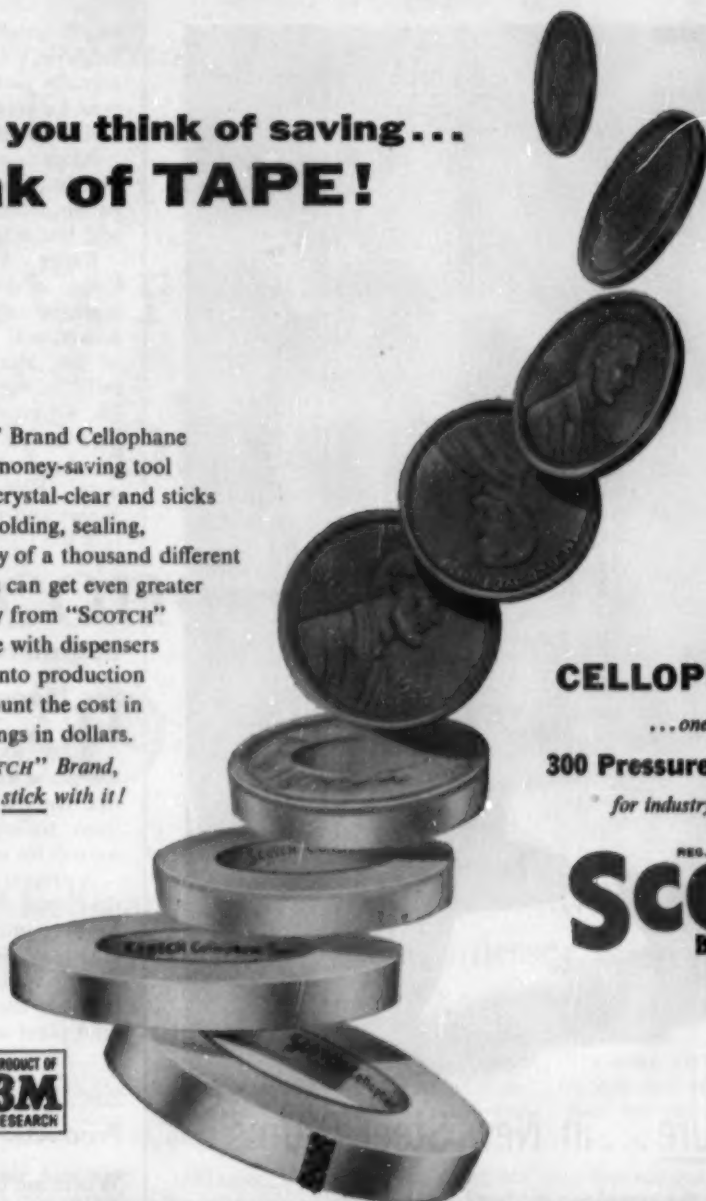
Two aluminum producers made news last week. One said that it can now make aluminum in a wide range of colors. The other said it was launching a \$90-million expansion program (BW—Oct. 8'55, p34).

Aluminum Co. of America said it had jumped a hurdle that has stood in aluminum's way right along. Says Alcoa, "It is now tech-

When you think of saving... think of TAPE!

Famous "SCOTCH" Brand Cellophane Tape is a time-saving, money-saving tool all over the plant! It's crystal-clear and sticks at a touch. Use it for holding, sealing, joining, protecting—any of a thousand different jobs. What's more, you can get even greater versatility and economy from "SCOTCH" Brand Cellophane Tape with dispensers that turn manual jobs into production line operations. You count the cost in pennies; figure the savings in dollars.

Always specify "SCOTCH" Brand, the quality tape... and stick with it!



CELLOPHANE TAPE

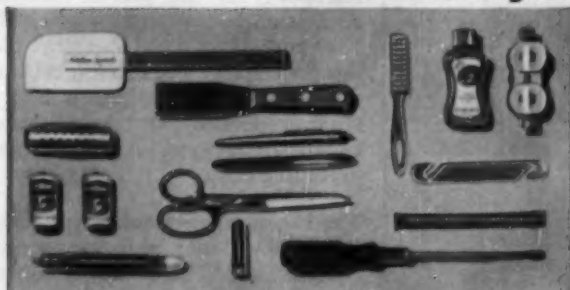
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300 Pressure-Sensitive Tapes

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IF YOU MAKE OR PACKAGE products similar in size and shape to these, you can card them quickly, easily, economically. New semi-automatic "SCOTCH" Brand Tape Stapler, using "SCOTCH" Brand Cellophane Tape, does it at production-line speeds—up to 80 items a minute. Tape "staples" will not scratch or mar surfaces.



TAPE STAPLED items, such as this lipstick tube, come out of machine fastened securely to card, which may be any size to allow for printed sales message.



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New containers are readily identified by the "Red-S" label of the Steel Shipping Container Institute. Always look for the sticker on incoming drums... it's a sure sign of a quality-packed product.



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nically possible to hit any color of the rainbow." Color finishes, which are actually part of the metal itself, can now be produced in all basic colors, and in shades of those colors.

Alcoa sees applications all over the lot: from lawn furniture to building panels, from automotive trim to train and bus exteriors.

Kaiser Aluminum & Chemical Corp. is doing the expanding. Its Ravenswood (W. Va.) plant, says Kaiser, will have the largest capacity of any aluminum fabricating plant built in the U.S. since World War II. Originally, Ravenswood was to have an annual capacity of 250-million lb. of commercial sheet and foil products (BW—Feb. 19'55, p90). Now, Kaiser says it is boosted to 333.5-million lb.

• • •

Upgrading Is in the Cards For Manganese Ore

It may soon be possible to upgrade low-grade manganese ore. This would free the North American continent from having to rely upon foreign sources for manganese.

A process of beneficiation has been developed by Dr. Marvin J. Udy, former president of the Electro-Chemical Society of America. The Strategic Materials Corp., Buffalo, is studying the possibility of building a pilot plant at Niagara Falls.

• • •

Production Briefs

Where are the chemists? The American Chemical Society's Committee on Manpower says that jobs for chemists and chemical engineers are at an all-time peak. Says the committee: The ratio of employers to applicants is the highest in 10 years; there is now a stronger demand for chemists and chemical engineers than during any peacetime era.

The largest-capacity surface grinder in the world will soon be in operation in Niagara Falls. The Coated Abrasives Div. of the Carborundum Co. said last week that the new giant will be used to grind aluminum, stainless steel, glass. It can handle work pieces up to 40 ft. long by 86 in. wide by 12 in. thick.

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can bring pertinent information right to your desk ready for measurement by your own yardstick.

You will find that this service will save many hours of valuable executive time in investigation and analysis. There is no charge. All we have to sell is power from capacity sufficient to meet the needs of any industry.

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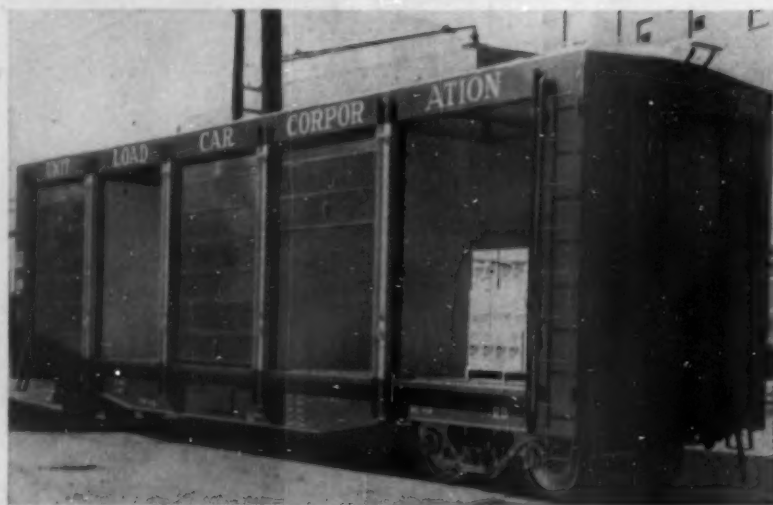
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NEW PRODUCTS



Quick-Unloading Freight Car

You can unload the freight car in
the picture in about 10 min. That's
because the compartments are accessi-
ble from either side of the car and
the doors roll up into the roof.

The car was shown for the first time
this week by the International Steel
Co. Its five compartments contain
3,360 cu. ft. of usable space. Compart-
ments are separated by plastic sand-
wich panels of a new type called Hasko-
struct, developed by the Haskelite Mfg.
Corp. of Grand Rapids. The panels act

as insulation and also add to the car's
structural strength.

The big advantage over a conven-
tional freight car is the fact that a
fork truck can get in and out of the
new car without doing any maneuver-
ing within the car itself.

International Steel is building the
cars for the Unit Load Car Corp., 1501
E. 96th St., Chicago, which will lease
them to shippers for about \$150 per
month.

• Source: International Steel Co.,
Evansville, Ind.

Self-Aligning Headlight

General Motors Corp. said this week
that this new-type automobile head-
lamp (picture) will be standard equip-
ment for all 1956 GM cars and trucks.
The new lamp has a built-in "safety-
aim" that enables a service station at-
tendant to install and aim correctly a
set of lamps in 8 min. He can do the
job in daylight and in far less space
than is required for adjustment of con-
ventional headlights.

Key feature of the new lamp is a
set of three glass knobs cast into the
lens. A plane laid across these three
points forms a surface at right angles
to the axis of the light beam.

Up to now, headlamps have usually
been aimed by using a screen. This re-
quires a semi-dark area about 50 ft.
long. With the new device, says GM,
the service man can make the adjust-
ment without bothering even to turn
on the car's lights. All he does is in-
sert the new lamp, clip on the aimer,
and adjust some screws.

• Source: General Motors Corp.,
Guide Lamp Div., Anderson, Ind.



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CORPORATION

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The story of Chrysler Corporation mirrors the ideals of its founder, a man who loved machinery with a craftsman's devotion. The tale encompasses the ingenuity, courage, and team loyalties of men Walter P. Chrysler chose to help establish his company in a field that had been a graveyard of 1,500 other equally hopeful ventures. Though only 30 years old now, the Chrysler Corporation is firmly established among the Big Three... And, reflecting its progressive management, "The Forward Look" includes xerography.



Anything written, printed, typed, or drawn can be quickly copied by versatile xerography onto paper or metal masters. Copies in the same, enlarged, or reduced size can be made from one or both sides of original material. For diazo-type machines, translucent intermediates can be made in the same speedy way, as can masters for spirit (and other fluid-type) duplicators. Also, up to eight copies, including a paper master or translucent intermediate, can be made from one xerographic image.

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Versatile xerography—the clean, fast, dry, electrostatic copying process—is saving Chrysler Corporation \$250,000 a year! Multiple copies of engineering drawings, technical reports, office and factory forms, correspondence, tooling and drafting manuals, financial and operating statements, dealer bulletins, press releases, and many others are run off on offset duplicators from inexpensive paper masters quickly prepared by xerography. Among Chrysler Corporation's accomplishments was the reduction of all its central engineering drawings onto offset paper masters by xerography. Drawings were reduced to 12" x 18" size from sizes up to 24" x 36". Xerography does in a few minutes what used to take hours. It eliminates errors and proofreading because it is photo-exact. Documents of all kinds are duplicated at impressive savings in time and money.

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Specialized machines such as this Model "GB" Blaw-Knox Precision Subgrader account for the amazing rapidity with which the highway network is expanding to meet this country's needs. This unit, with its extra discharge horn permitting discharge of spoil at either end, is only one of a steadily-lengthening list of special-purpose equipment utilizing Red Seal power. You find Red Seals, today, building prestige for the makers—and earning profits for the users—of leading makes of pavers, graders, mixers, compressors, earth-movers, ditchers, shovels, rollers and numerous other machines. You can clinch on-time performance by standardizing on equipment which offers the plus-value of dependable Red Seal power.

4-CYCLE ENGINES FOR INDUSTRY AND FARM

In addition to its large engines, Continental builds an outstanding line of heavy-duty air-cooled four-cycle models for farm and industrial applications requiring 2 to 3 h.p. Advanced engineering gives them easy starting, high dependability, and unusual lugging capacity at low speeds . . . Op-



tions: patented and exclusive Contax® external ignition system, low-level ignition cut-off, 8-1 reduction gear, and other features. Available also for use on kerosene . . . For information on these models, address Air-Cooled Industrial Engine Division, 12800 Korchival Ave., Detroit 15, Michigan.

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1252 OAKLEIGH DRIVE, EAST POINT (ATLANTA) GA.



Heat-Resisting Tube

The tiny device in the picture is an electronic tube, made entirely of metal and ceramic, that can operate normally under extreme heat. General Electric Co. announced it this week.

It seems likely that GE has designed this tube to fill a void that now exists in the area where neither the vacuum tube nor the transistor quite does the job that is needed.

The new tube operates at 900 megacycles, which is considerably higher than the range of today's transistors.

GE sees possible applications in such places as mobile and industrial communications, airborne and mobile radar, industrial controls, nuclear power controls. "In general," says the company, "any equipment requiring motion, high temperature, restricted space, automatic assembly or ultra-high frequency performance has a potential requirement for micro-miniature tubes."

• Source: General Electric Co., Schenectady 5, N. Y.

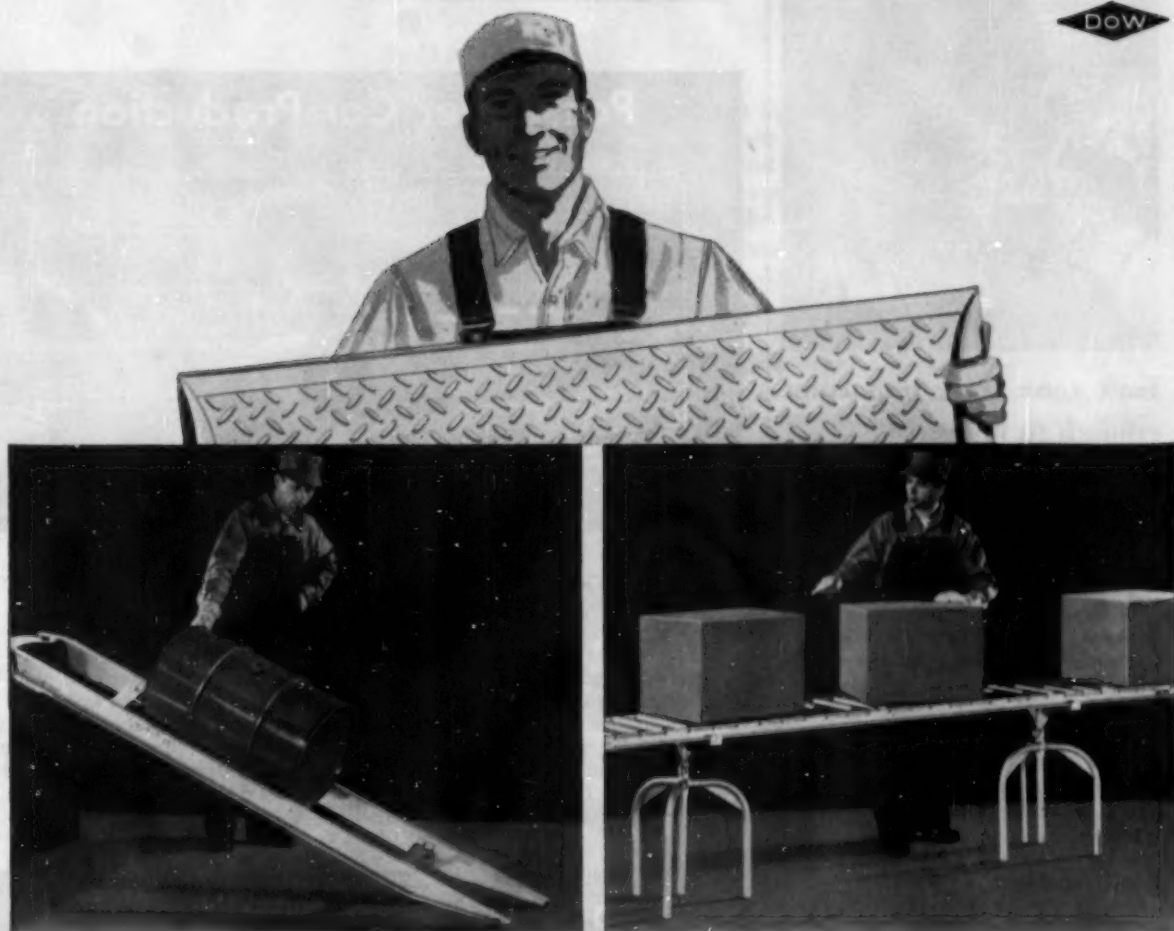
NEW PRODUCTS BRIEFS

An inexpensive window paint that blocks an outsider's view, yet permits 80% of the light to get through, has been developed by research engineers at New York University. It is meant for office and factory installations where special glass might be too expensive.

After five years of development, U.S. Steel Corp.'s National Tube Div. last week began marketing a second type of plastic pipe, made of polyvinyl chloride. National Tube sees it as a wholly new piping material, not a substitute for others. It is said to have excellent chemical resistance, also high strength and light weight.

CHARTS OF THE WEEK

DOW



MAGNESIUM

lightness in equipment saves manpower
when materials are on the move

Biggest reason for the expanding use of Dow magnesium in materials handling equipment—*light weight!*

Results are higher efficiency and better use of manpower. Dockboards, barrel skids and conveyors are just a few of the many applications where industries are saving weight and money, too, with magnesium equipment.

Other significant reasons for the growing demand for Dow Magnesium are:

Design simplification without sacrifice in strength

requirements.

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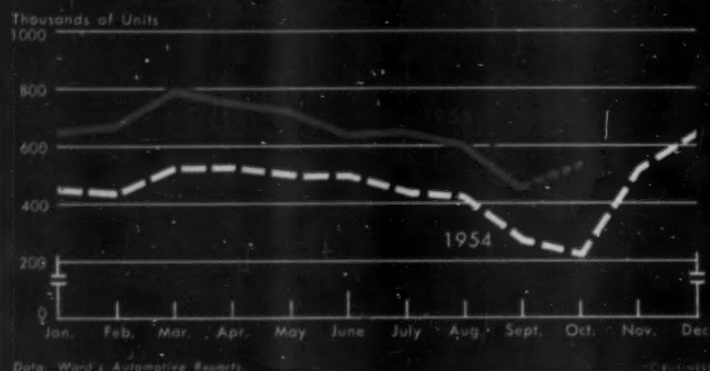
FIRM NAME.....

ADDRESS.....

BY.....
(TITLE)

CHARTS OF THE WEEK

Passenger Car Production



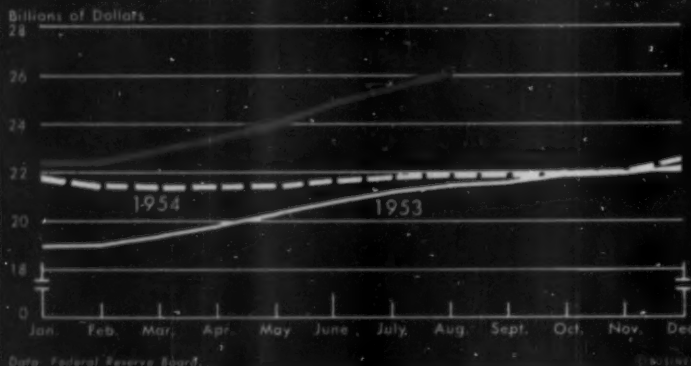
Pointing Higher Still

U.S. passenger car production in October is expected to reach 16% above September's estimated output of 462,800 cars. If that happens, says Ward's Automotive Reports, the 10 months' total for 1955 would be 6,532,800 units—a record for any 10 months, and just 2% below the full-year record production of

6,674,933 cars set in 1950.

Production in November and December is expected to be well above the total for those two months a year ago. Output in November and December last year already stands as the highest ever recorded for those two months.

Installment Credit Outstanding

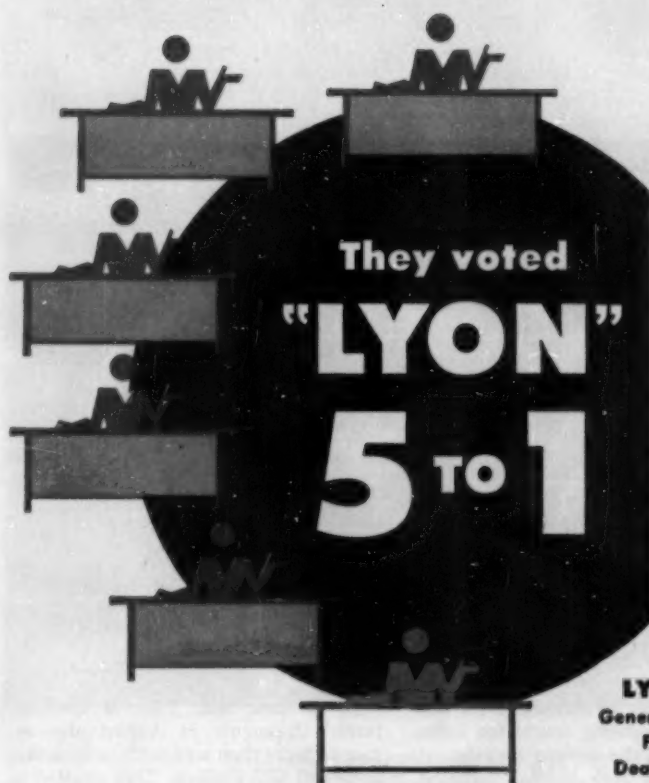


No Pause in the Steep Climb

Outstanding installment credit continued its steeper-than-usual rise in August, hitting a seventh consecutive high as consumers went deeper into debt to finance their purchases. Its new high for August was \$26,155-million; a climb of \$679-million from July, and up \$4,254-million over August last year.

As usual these days, it was auto credit—up \$509-million—that made up the largest part of the jump from July to August. Other consumer goods credit increased \$86-million.

Never before has the American people pledged so much future income for past purchases. Outstanding installment



It's Lyon by a landslide in a recent preference survey among executives in companies throughout the country. They gave Lyon five times more first choice mentions than the second highest manufacturer . . . and twice as many as the next twelve combined!

A nationally known research company compiled those figures by asking key men in 5,000 companies this question:

"If your company were in the market for steel equipment such as steel shelving, lockers, work benches, shop boxes, etc., what manufacturers would you consider?"

Your nearest Lyon Dealer offers the world's most diversified and most preferred line of quality steel equipment. (A few items are shown below.) Equally important, he can show you how to get the most out of steel equipment in terms of time, space and money.

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- Lockers
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- Bar Racks
- Display Equipment
- Revolving Bins
- Coat Racks
- Sorting Files
- Shop Boxes
- Stools
- Storage Cabinets
- Tool Boxes
- Toolroom Equipment
- Filing Cabinets
- Work Benches
- Drawer Units
- Tool-Trays
- Bin Units
- Drawing Tables
- Parts Cases
- Wood Working Benches
- Hanging Cabinets
- Bench Drawers
- Hopper Bins
- Shop Desks

GUARD AGAINST

panic confusion destruction
SUDDEN BLACKOUT
injury loss of life

be prepared with

Big Beam



AUTOMATIC EMERGENCY LIGHTS

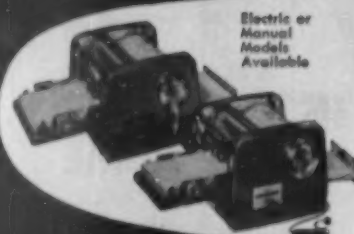
Big Beam Model 2ATW with storage battery and built-in charger that keeps battery fully charged at all times.

It's so easy to be protected against all the terrible consequences of sudden light failure. Install a Big Beam automatic emergency light now (choose from a variety of models). Just plug it into any convenient lighting outlet. Then when lights fail... your Big Beam will come on instantly and provide hours of bright, SAFE illumination. Write for descriptive bulletin.

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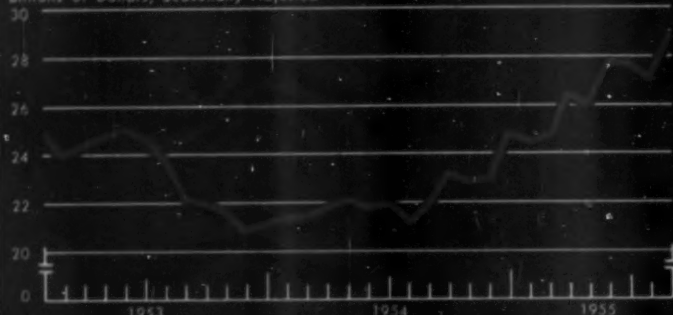
State _____

credit now amounts to almost 9½% of disposable personal income (income after taxes), despite the fact that income

has also risen sharply. At the end of last year this ratio stood at 8.8% of disposable income.

Manufacturers' New Orders

Billions of Dollars, Seasonally Adjusted



Data: Dept. of Commerce.

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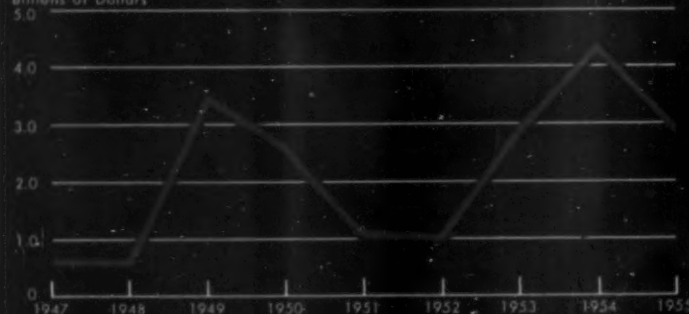
Pointing to High Production

August figures for manufacturers' new orders chart a strong course for industrial output in the coming months. After adjustment for seasonal variation, these orders amounted in August to \$29-billion—the highest value recorded for any month in history.

At the same time, value of manufacturers' shipments in August also increased more than seasonally, amounting to almost \$27.5-billion. This resulted in another addition to unfilled orders, which now add up to more than \$52-billion—up \$4-billion since last April.

Cost of Price Props

Billions of Dollars



Data: Dept. of Agriculture.

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A Lightning Burden

The cost of price supports for crops during the fiscal year ended June 30, 1955, was down almost one-third from the previous year. The drop was from \$4,305,818,349 for fiscal 1954 to \$2,942,929,482 for the last fiscal year. That's a 31.7% decline.

Nevertheless, there are only two years

—1949 and 1954—in which price supports tied up more money. As of June 30, 1955, total investment of the Commodity Credit Corp. in price support commodities amounted to \$7,069,277,436. Of this, inventories totaled \$4,971,463,436 and the balance consisted of outstanding loans.



Sickness at your house?

TODAY, medical and nursing authorities are recommending home care for more and more patients . . . especially if someone in the family is skilled in home nursing.

There are several reasons why home nursing is of such great importance now. Nearly all of our country's hospitals are crowded. In fact, they care for more than 20 million patients a year. Naturally, doctors, nurses and their assistants are busier than ever before. So, whenever a patient can be adequately cared for at home, hospital beds and personnel are freed for more serious cases.

Moreover, the cost of a long hospital stay is a heavy financial burden to the average family . . . as well as a source of worry to the ill person. Lengthy hospitalization may also make the sick person depressed and even doubtful of his recovery. These attitudes can often be offset when the patient can safely and conveniently be cared for within the family circle. In fact, familiar home surroundings and family companionship can often help to hasten recovery.

Fortunately, in such circumstances, home nursing can usually be performed adequately by a family member under the direction of the doctor. To give the best possible help to an ill person, however, the home nurse must know how to follow the doctor's specific instructions, and be able to care for both the physical and emotional needs of

the patient. In addition, the home nurse should be prepared to make some simple but essential observations which help the doctor determine the patient's progress.

Suppose you had to give home nursing care to someone in your family. Would you know how to do any of the following:

1. Could you carry out a doctor's orders to observe and record a patient's breathing, or to take his pulse?
2. Help a sick person overcome fears and anxieties?
3. Persuade a child to take medicine?
4. Help a bed patient maintain comfortable posture?

Since illness may occur unexpectedly at any time in any family, someone in *every* household should be a qualified home nurse.

You can learn more about home nursing skills in free courses given in most communities by the American Red Cross. If you cannot enroll in one of these courses, you can learn many essentials of home nursing with the help of Metropolitan's 32-page, illustrated booklet called *Sickness At Your House?* Just fill out the coupon below to receive a free copy. It explains how you can do many things—expertly and gently—that are conducive to a sick person's comfort, contentment and recovery.

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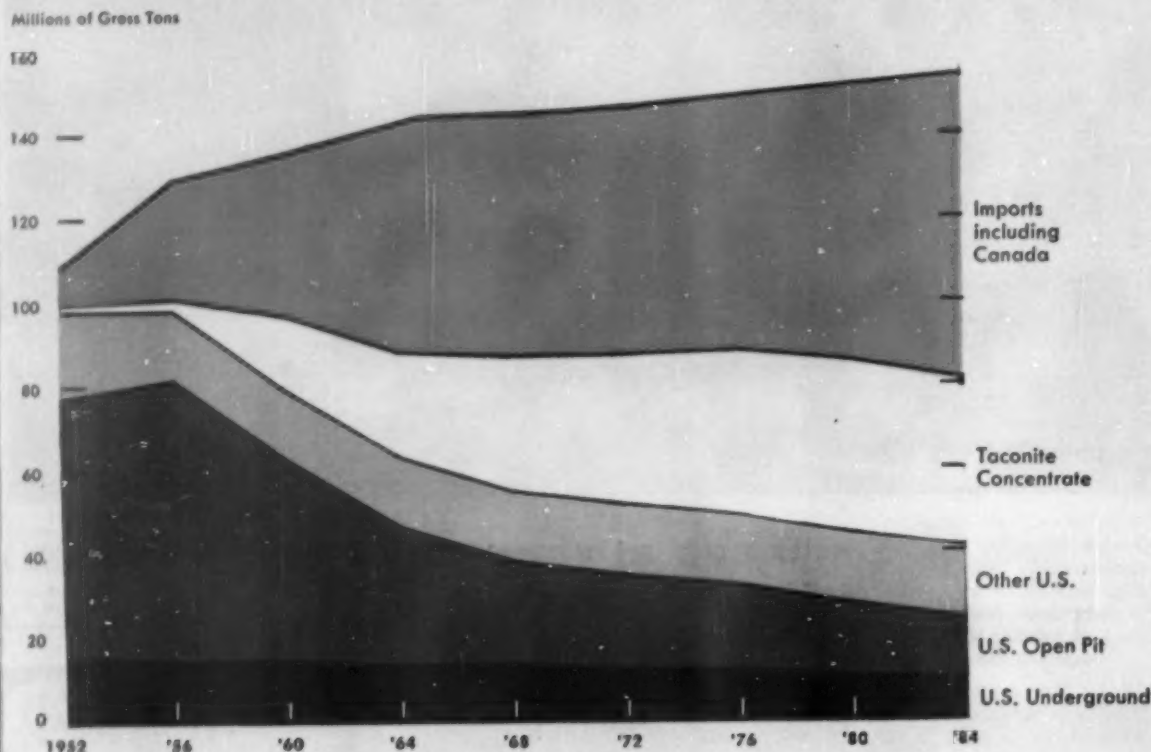
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Here's how ore imports and taconite will take over between now and 1984, while other sources fall behind



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Ore to Feed Steel's Expansion

When Benjamin F. Fairless, then board chairman of U.S. Steel Corp., predicted last year that by 1974, this country would need 155-million tons of ingot steel a year, a lot of eyebrows were raised. The steel industry was just completing its greatest expansion in history, bringing capacity to 126-million tons. That, with some minor additions, most steelmakers had believed, would take care of the country's requirements for a couple of decades.

Since then, however, others have raised even those elevated sights. Charles M. White, president of Republic Steel, thinks steel consumption in 1975 will be about 170-million ingot tons. Bethlehem's Arthur B. Homer sees a need for 185-million ingot tons by 1970. Joseph L. Block, president of Inland Steel, believes 216-million

ingot-ton capacity may be needed by 1980. And, naturally, a rash of planned expansions is now bursting out on all sides to implement those forecasts.

• **You Need Ore**—At the same time, iron ore producers—who a few years ago were sorely concerned over the rapid depletion of high-grade domestic deposits—started figuring where the ore would be coming from.

It takes roughly two tons of ore to make one ton of pig iron—and steel is made from an approximate 50-50 mix of pig iron and scrap. An increase in steelmaking capacity of 60-million tons means an equivalent tonnage of additional ore must be delivered. The rich open-pit Mesabi range has supplied over 2-billion tons since 1884, has about 750-million tons left. This year the U.S. steel industry will chew up 123-million tons from all sources, 45-million

tons of it from the open-pit operations in the Lake Superior region alone. At that rate, high-grade domestic deposits could be swallowed within a generation.

1. Floods of Ore

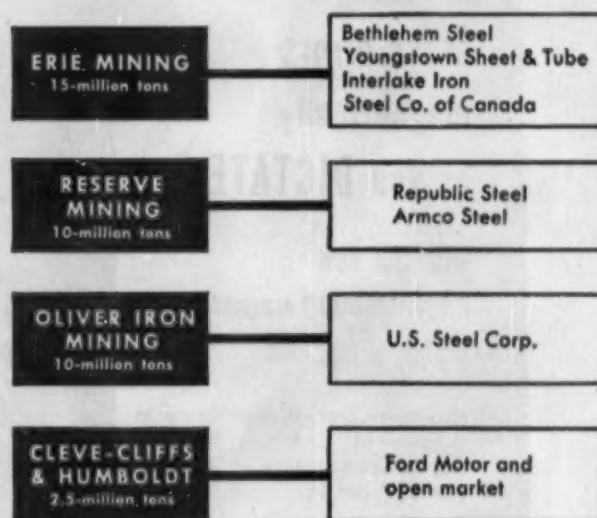
So steelmakers and iron men have been scuttling in several directions for over a decade now to find alternative sources—but only within the last two years have they been sure that their heavy investments in foreign fields and in processing the lean taconite ore and its younger cousin, Jasper, would pay off. Now it seems that most of the future ores will be flowing from the new sources.

From now on, several studies indicate, in spite of the expected rise in steel production, ore producers may

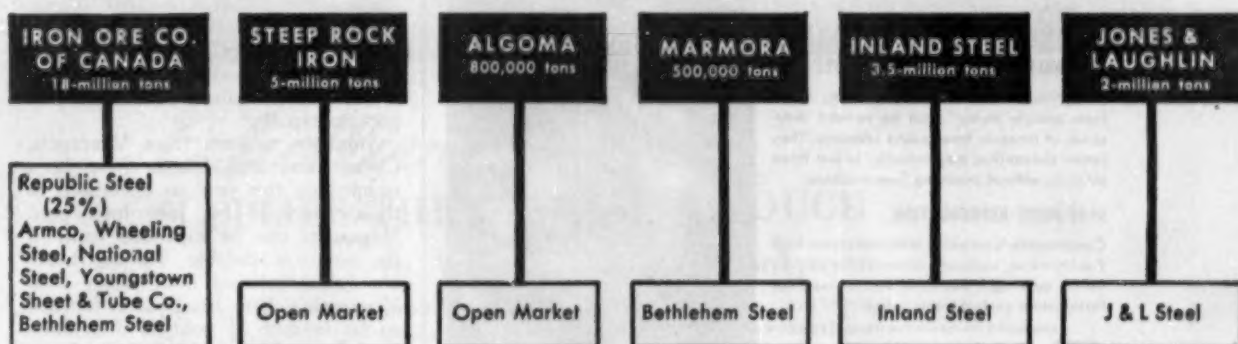
1984's overseas imports — where from, and who will get them.



Taconite concentrates in 1984 — who will produce and use them.



Canadian ores — the sources and users in 1984.



©BUSINESS WEEK

have to worry more about customer-shortage than ore-shortage—there'll be that much available.

• **Shifting Picture**—One such study was made by V. D. Johnston, consultant to Oglebay, Norton & Co., Cleveland-based ore producer. On the basis of the now-low Fairless forecast, he assumes a need of 153-million gross tons of ore in 1984. He sees the ratio changing this way:

• Imported ore, about 22-million tons this year, or 18% of the total consumed, will rise to 69-million tons in 1984, or 45% of the increased consumption.

• Taconite and jasper concentrates, which this year account for about 1% of consumption, will shoot up to 27%, with 42-million tons.

• Open-pit ores, both direct-shipment and concentrates, which represent

55% of this year's use, will drop to less than 10%.

• **Ores from underground mines**, and from northeastern, southern, and western districts, will slip only slightly in tonnage, but will take a steadily smaller proportion of the whole.

That means 72% of 1984 supplies will come from the newer sources.

• **Steel Spending**—The increases in both foreign ore and taconite and jasper concentrates, of course, stem directly from steel company concern over depletion of domestic reserves. The steel companies over the past 10 years have been sinking hundreds of millions into new fields outside U.S. borders and into beneficiating (concentrating) plants here.

The lean-ore (taconite-jasper) bodies in the Lake Superior region got the first nod 10 to 15 years ago, when wartime

brought uncertainties in mining and transporting ore from overseas countries. This made even the expensive processing necessary for taconite and jasper seem attractive as a long-range bet. And until recently the government was stressing a self-sufficient policy.

Since the war, rich ores in foreign territories—Canada, Venezuela, Liberia, Peru—have become even more attractive. Steel companies and ore producers have rushed to get both aspects into operation—and the newer sources are now beginning to make important contributions.

• **Stepup**—Beneficiated ores—taconite and jasper—until this year have been produced and used in small quantities. But the four major groups producing them are all stepping up production. The four are:

• Erie Mining Co. (Bethlehem,

now...
erase errors
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**"... the foreign ores are,
for steelmen, no longer a
strategic problem. . ."**

ORE starts on p. 96

Interlake Iron, Youngstown Sheet & Tube, and Steel Co. of Canada).

- Reserve Mining Co. (Republic Steel, Armco).

- Oliver Iron Mining Div. of U. S. Steel.

- Cleveland-Cliffs Iron Co. (its money is on Michigan's jasper rather than Minnesota's taconite).

In three years, 10 times as much of the concentrates will be used as this year. Their share will move up steadily every year thereafter as processes are improved further.

- **Foreign Climb**—Foreign ores have been climbing even more rapidly. The big Quebec-Labrador fields owned and operated by Iron Ore Co. of Canada (which in turn is partly owned by a half dozen U. S. steel and ore companies) made their first major deliveries this year, will bring in 6-million tons by yearend. Operations are reported so efficient that deliveries are limited only by the availability of ships to bring the ore down. Other Canadian sources, such as Steep Rock Iron Mines Ltd., are up substantially, can increase production rapidly.

Similarly, imports from Venezuela, Chile, Peru, and Liberia have been stepped up this year, as operations in those countries get into high gear. Shipments can be expanded easily if the market is available. The big Brazilian fields, believed even richer than Venezuela's, have barely been touched so far because of political difficulties. But they might throw an even larger supply on the market over the next few decades.

The foreign ores, as far as steelmen are concerned, are no longer a strategic problem. The steelmen are figuring that in the event of a war—which would probably be atomic—the conclusion will come too fast for long-term domestic reserves to be vital.

Most of the foreign ores are top-grade, some with special qualities, and they can be delivered at mills in this country competitively with Mesabi ore right now.

II. Patterns of the Future

This general future pattern is verified by another ore expert, H. S. Harrison, vice-president of Cleveland-Cliffs Iron Co. His forecast varies in detail from Johnston's (for one thing, he anticipates an ore need of 170-million tons by 1980), but his percentages of total by that date match closely—41%



O'Sullivan

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The manufacturer who puts them in the box and the retailer who takes them out . . . along with the customer who buys and wears them, knows that these are "finished" shoes; shoes that have been given the finishing touch of style, comfort and wearability by O'Sullivan, "America's No. 1 Heel . . . and Sole."

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If any of these products can serve your business, write: O'SULLIVAN RUBBER CORP., WINCHESTER, VA.

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...and Tailor-Made Packaging

Just yesterday, it seems, shopping for meats could be an exasperating, time-consuming operation. Now tailor-made packaging is making it simple and swift.

Consider, for instance, the woman with ham in mind. Whether she plans to serve three persons or a dozen, she can help herself quickly to the precise quantity she needs, already pre-cooked in a Continental pear-shaped or oblong can. The price is clearly marked, and there is no waste. Like all canned ready-to-eat meats, and meat dishes, every last morsel is good eating.

Pre-packaged luncheon meats are also available in vacuum-packed transparent pouches. These convenient packages both protect the product and speed selection at the time of purchase.

The move toward 100% pre-packaging of meats has had its greatest impetus within the past ten years. Continental's tailor-made package service has kept pace. With cans, film wraps, trays and boards, we are prepared to protect the original nutritive value and good quality of meat in any form.

Tailor-made packaging for almost everything

With a host of materials to work with, and fifty years of experience at our command, Continental is prepared to give you tailor-made package service for nearly any product you can name. Continental Can Company, New York 17, N. Y., Continental Can Company of Canada Ltd., Montreal, Continental Can Corporation of Havana, Cuba.





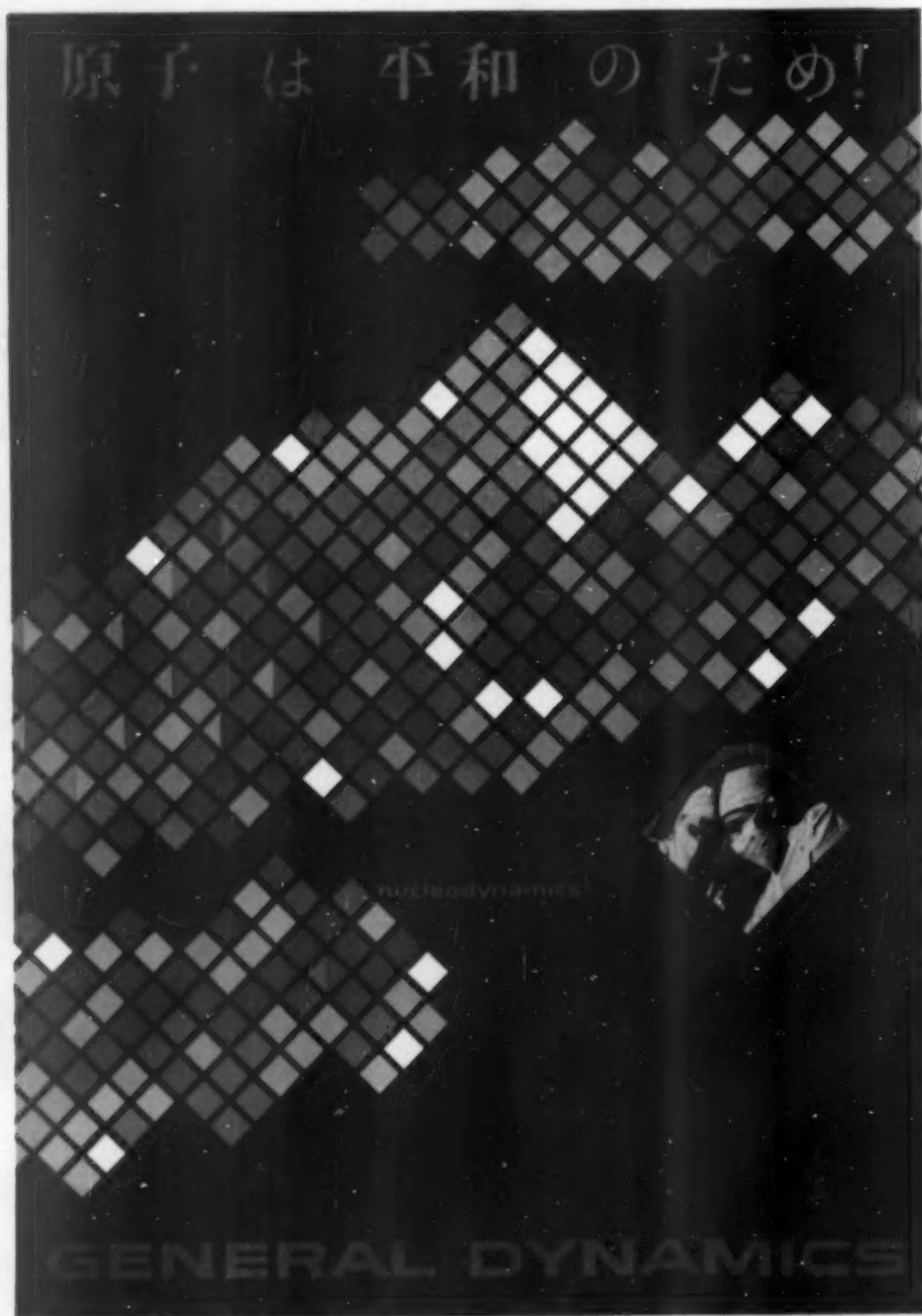
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Plastic Pipe

Second in the "Atoms for Peace" international poster series recently displayed in Geneva by General Dynamics. Design inspired by isotope symbols used in the promising new field of nuclear medicine.



"... the open-pits could be held as a hedge against higher costs. . ."

ORE starts on p. 96

imported ores, 27% concentrates, 12.5% open-pit, with ores from other domestic sources about holding their current percentage of the market.

Whether these projected patterns will really hold, however, depends on a number of unknown factors, as the ore experts themselves are quick to admit.

• **Politics**—For one thing, political hassles could conceivably choke off the heavy flow of ores from Latin America—and in that case beneficiating plants in this country would step up their output considerably. Or an economical method might be found to extract the iron from the tremendous reserves of lean ore in the South (it's now being diligently researched). That would reduce the need for foreign ores. Or the potentially vast Brazilian fields might be opened for big exploitation, cut further into domestic sources.

• **Open Question**—Something that could change the picture more radically—and rapidly: the question of how quickly the owners of open-pit, direct-shipping grade ore might decide to deplete their holdings (U. S. Steel owns about 75% of the remaining reserves in the great Mesabi range). With the other ores now readily available—and open-pit mines no longer a strategic ace—rapid all-out depletion would have some attractive angles.

For one thing, open-pit mining is the most economical way of taking out high quality ore. The more that's used, the quicker the profit. Minnesota levies substantial taxes on reserves—so the quicker the reserves are gone, the lower the total tax bill. And special mineral-depletion tax allowances could improve a short-run profit picture with quick depletion.

Alternatively, though, the owners could decide to nurse the open pits, cut production there, and use more foreign and beneficiated ores. With the low production-cost factor, the open-pits could be kept as a hedge against higher costs and slimmer profits in the future.

• **Company Variations**—The patterns will, of course, be influenced strongly by the holdings of the individual companies. U. S. Steel, for instance, can balance—it's got most of what's left on the Mesabi, has a big deposit in Venezuela, and is also setting up a 10-million-ton taconite plant.

Republic, without major high-grade reserves here, has a big interest in Iron Ore Co. of Canada, owns half of Re-

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General writing 2668

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The Esterbrook Pen Company of Canada, Ltd., 92 Fleet Street, East, Toronto, Ontario

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You can't go wrong on this guaranteed* desk set . . . with its giant ink fountain-base that automatically fills the pen and keeps it ready to write a full page or more whenever you take it from its socket.

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Your regular dealer will be glad to let you try one of these fine Model 444, Self-Filling Desk Pens on your own desk for 30 days with the understanding you can return it for a full refund if you don't agree it's the best you've ever used.

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What we learned from this lightweight compressor may solve a weight-lifting problem for you!

First of its kind to combine both light weight and high output, this 11¼ pound Kidde 4-D compressor helped the aircraft industry to develop new controls by putting high power in a small, light package!

Using the experience gained in the development of lightweight compressors like the 4-D, Kidde engineers now specialize in the design of *complete* pneumatic actuating systems for aircraft. In addition, they have put their knowledge of pneumatics to work solving problems in other fields.

For example, Kidde's knowledge of pneumatics and gases under pressure made possible a new weight-lifting device—an inflatable sack which, when filled from a small, 3000 psi compressed air container, will lift a weight of 12 tons five feet in 68 seconds!

Developments like this prove that Kidde engineers have learned to stay away from one-track thinking, show clearly how Kidde applies its store of knowledge to various fields. You get the benefit of knowledge like this every time you call on Kidde—specialists in *creative engineering*!

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**"... increased supplies
won't put any downward
pressure on prices..."**

ORE starts on p. 96

serve Mining (taconite) and of some specialty-ore holdings in Liberia.

Bethlehem has been importing between 25% and 33% of its ore, mainly from Chile and Cuba. Now it has branched out into ownership of mines in Canada, Venezuela, and part ownership of Erie Mining (taconite). Other steel companies have also climbed onto varying parts of foreign or taconite operations.

And it's a safe bet that individual companies will take as much of their requirements as they can from the sources in which they have direct interests (table, page 97).

III. Customers and Prices

Meanwhile, in the short term, the question of where all the available ore is going to go is of more immediate concern than where it will come from. Oliver Iron Mining (U. S. Steel's ore division) is actively courting old and potential new customers for both its domestic and Venezuelan ores.

Iron Ore Co. of Canada is producing in excess of estimated rates. Steep Rock is able to step up its annual production to almost double present figures. And the beneficiation plants in the Lake Superior area next year will be more than doubling their 1955 production. Even if the steel industry upped its production next year, there'd be more than enough ore to go around.

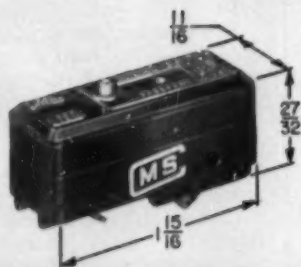
• **Prices**—Increased supplies, however, won't put any downward pressure on ore prices. Ore producers are still mum on pricing for next year, but all indications are for a small increase—probably between 40¢ and 60¢ a ton—since overall prices are set by the bellwethering underground mines.

Though it costs at least three times as much to produce a ton of ore from underground as from open pits, the industry must keep the underground mines open for the particular quality of ores they produce. (Some marginal deep mines are being closed—but the bigger ones are still vital.) And the wage increase granted under the new United Steelworkers-CIO contracts (most iron ore miners, lake fleet crew members, dock ore handlers are USW members) will increase their costs.

Price changes for open pit and taconite ores will reflect the lead of the deep mines. If the foreign ores don't raise by equivalent amounts, though, that could mean more of an immediate switch to the imports. **END**



MICRO SWITCH Precision Switches
A PRINCIPLE OF GOOD DESIGN



Four switches of this type are used in this Cory coffee brewer. Two switches automatically make and break the heating cycle; one controls a solenoid which regulates water flow. A fourth operates the 230 volt, 3800 watt element. These switches have an inrush capacity of 75 amperes.

MICRO SWITCH

Controls help Cory
push-button coffee brewers
make coffee "just right"
...AUTOMATICALLY

Four MICRO SWITCH precision switches in the Cory push-button coffee brewer help provide precise control of every brewing factor.

Engineers of the Cory Corporation selected four MICRO SWITCH high capacity switches to provide automatic control of measurements of water and control of temperature and infusion time. All are switches especially designed to handle high inrush currents.

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What is your switch requirement? Whatever complex switching problem may be faced by your design staff, MICRO SWITCH engineering specialists can save you time and money. We may have solved your problem for somebody else. If not, we have the ability, resources and experience to develop the exact switch to meet your requirements. There are 22 MICRO SWITCH branch offices located in principal cities. Look in the Yellow Pages for the one nearest you.



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MICRO SWITCH provides a complete line of extremely reliable, small-size, high-capacity, snap-action precision switches and mercury switches. Available in a wide variety of sizes, shapes, weights, actuators and electrical characteristics. For all types of electrical controls.

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U. S. fishermen accuse prospering Japanese as catch dwindles in Alaskan waters. Scientists investigate.

American fishermen in Alaska are complaining bitterly about Japanese fishing for salmon. They say it is endangering their own salmon-canning industry, and they are airing their grievances at Senate Interstate & Foreign Commerce subcommittee hearings at Anchorage and Seattle, this week and next.

The Alaskan salmon catch, once the world's largest, has dropped off very badly in recent years (BW-Sep.3'55, p.72). This year will be the worst in a long time; the catch will wind up about 60% under the peak levels of the 1930s, some 25% under as recent a year as 1950.

The Japanese salmon industry, on the other hand, has been going along at a great clip. In 1953, the Japanese caught some 185-million lb. of salmon; this year the catch should total about 300-million lb.

• **Two and Two—Beleaguered** U.S. cannerymen and fishermen have put these two facts together; many blame the Japanese for the U. S. declining catch. Salmon feed and mature on the high seas, then return to home waters to spawn. They're caught as they head for inland waters. U. S. fishermen claim the Japanese are taking, from the high seas, immature fish or fish that are destined for U. S. shores.

What hurts even worse, they say, is that a large part of the Japanese catch is then canned and exported to the U. S., at prices that undercut the domestic product.

• **Little Evidence**—The Japanese are limited, by the North Pacific Fisheries Convention, to fishing in the western Pacific, and there's no indication that they are violating the treaty. Under the treaty, scientists are now investigating U.S. complaints; what evidence there is—which is little so far—doesn't seem to bear out charges that the Japanese are taking immature fish or fish destined for U.S. waters.

Observers point out that the Alaskan catch was dropping even before the Japanese went into their postwar salmon boom. Many blame the poor showings on overfishing in the past. Alaska has had a strong conservation program going over the past few years (which is still another reason for this year's poor catch), and experts feel that the catch may start moving up again fairly soon. **END**



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In Commodities

Copper Market Regains

Some Sanity—at 43¢ a Lb.

The copper market seems to be settling back into a relatively sane condition again. The shortages, the frantic buying, and the wild prices of the past few months are over, for the time being anyway. The whole tone of the market has changed.

Shortages and worldwide competition for copper supplies pushed the "official" U.S. producer price up to 43¢ a lb. Best guess is that the 43¢ price isn't in any immediate danger.

But all the premium markets have weakened considerably. Scrap copper prices dropped 5¢ a lb. in just one week. Custom smelters, who turn the scrap into refined metal, cut their prices three times in as many days, and seemed to be heading straight down toward the 43¢ price.

Meanwhile, both buyers and sellers are reinforcing the turnaround. Falling scrap prices have brought to light large amounts of hidden scrap as dealers push to get what they can while the getting is good. And buyers all along the line no longer are eager; in a falling market it's just good business to wait and see.

While prices were moving up, the volatile London market led the U. S. price hikes. Now the two markets are reinforcing each other on the way down. Weakness in this country first developed when the London market moved down. Then the London market fell sharply, largely because U.S. prices were weak. Last week, London prices dropped right through the custom smelters' level and rested about on a par with the U. S. producers' price.

All this doesn't mean that large blocks of copper are going begging on the open market. Demand—at a price—is still high, and is bolstered by the need to rebuild inventories. At 43¢ a lb. U. S. producers are selling all the metal they can turn out.

An added booster for demand, through the end of the year, lies in the tax situation. During the shortage, fabricators dug deep into their copper stocks, reaching metal that they had bought at much lower prices. However, the prices they're charging for their products are based on current high-cost copper. So unless those who are using last-in-first-out accounting can replenish their inventories with higher-cost copper before the end of the year, they're going to have a big tax bill to pay.

Commodities Briefs

Sugar prices stay strong, with consumption continuing at a high level. Last week, refiners hiked prices 10¢ per 100 lb. in many sections of the country. An increase of 100,000 tons in the marketing quota, which would normally depress raw sugar prices, scarcely disturbed the market this time.

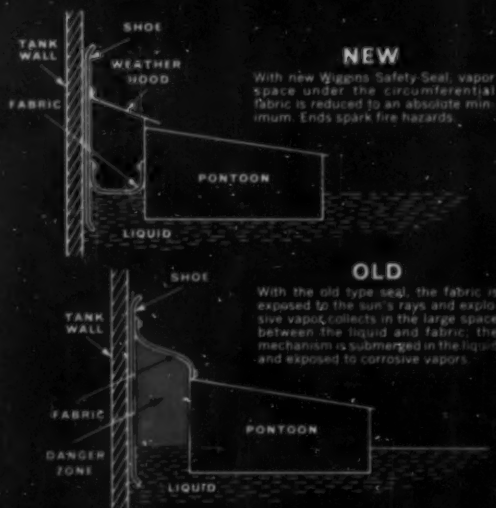
Wool consumption for apparel through August gained a meager 4% over last year. In total consumption of wool, some long-time losers, such as blankets and auto fabrics, offset the gains made in clothing production.

Print cloth prices are finally showing the effects of the general textile revival. Until recently, prices stayed sluggish even when orders were brisk; now they're moving up.

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If petroleum conservation is important to you, send for full details of this basic improvement in floating roof design.

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REAL ESTATE

Big Jobs for Private Money

They're just about ready to start now that the government's lease-purchase construction program for new federal buildings is moving faster.

Across the country, scores of post office clerks, court attendants, and federal office building workers have been trembling these last 15 years in fear of their lives. While they worked, ceilings above them flaked apart dangerously, window frames teetered and seemed ready to fall on them, brickwork crumbled and slowly became more threatening.

Many shifted from their offices to temporary quarters that were frequently little better than the places they had vacated.

Today, there's a change on the way for them. After 15-year moratorium, new federal office buildings, court houses, and post offices are about to start rising again throughout the nation. This time, though, it will be private money, not public funds, that will pay for the new structures.

• **A Business Deal**—Lease-purchase is the lifeblood of the new round of federal building construction. Much like hotel and department stores that move to new quarters but keep their capital liquid by using lease-back plans, the government will acquire its new facilities by installment buying—paying for them without increasing the federal debt.

Congress O.K.'d lease-purchase in 1954 for two agencies: the Post Office Dept., to build single-purpose structures for its own use; and the General Services Administration, to erect new buildings for the rest of the government's non-defense activities. To maintain management control of the program, each project has to be approved by the Budget Bureau and the Public Works Committees of the House and Senate.

Projects scattered from coast to coast already are in the works. The Budget Bureau and the Public Works Committees of Congress have cleared more than 50 for lease-purchase construction. Total cost of these projects: \$105-million. GSA has the bigger jobs, 26 with a top cost limit of \$91-million. The Post Office holds 27 approvals totaling \$14-million.

The new buildings are farmed out for design as rapidly as the two agencies can turn out guideline requirements and negotiate architect-engineer contracts. Designs are well along for 15 projects, and another 20 to 25 will be

on the drawing boards of design contractors before November.

By December, both GSA and the Post Office will be inviting bids on initial lease-purchase projects from investor-builders. Bid openings, to come along about 30 days later, will furnish the first real clue to whether investment institutions can, and will, finance federal buildings under the government's new plan.

• **Starters**—Lead-off project for GSA is a \$12-million communicable disease center in Atlanta, Ga. The six-building center will be erected for the U.S. Public Health Service on a donated site adjacent to Emory University campus.

Likely second on GSA's bidding schedule is a new \$1.6-million court house and post office building for Council Bluffs, Iowa.

The Atlanta project was conceived several years ago, when Congress planned to finance it as a strictly federal undertaking. Original drawings and specifications have been in GSA's files since then. So, to get a better view of just how the federal lease-purchase program works, you need to delve into the background of the Council Bluffs job.

I. Out of a Ruin

It's pretty plain why Council Bluffs is one of the first cities to be selected as a site for a new post office and court house. The old building housing these offices was condemned in 1951, after it began to crack dangerously. Since then, the post office has been housed in another crumbling building—the local Moose auditorium. Outside, there is barely room in the busy street for the post office trucks. Inside, moths flutter from curtains that cover the empty stage, piles of dusty seats on the balconies hang over the heads of clerks sorting mail. Looking down from the highest point of the ceiling is a stuffed moose head, left there by the lodge.

GSA and those involved in the project have been feeling their way through the new program's regulations.

The architect-engineers, who began their work in May, are speeding plans for the building toward completion. Working on it as a joint venture are

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MYLAR* offers you almost unlimited opportunities for product development

New Du Pont "Mylar" polyester film is used as the facing on the Owens-Corning Fiberglas Sonofaced** Acoustical Tile shown—"Mylar" makes possible the only smooth-surfaced acoustical tile on the market.

"Mylar" acts as a vibrating membrane, effectively transmitting sound to the Fiberglas absorbent. And with "Mylar" as the facing, dust and dirt can't collect on the smooth surface—Sonofaced Tile can be easily cleaned with soap and water . . . never needs repainting. This new development fills the need for an acoustical material with high sound absorption, good light reflection, and a smooth, easily maintained finish. Any number of color combinations and patterns are possible, using printed "Mylar."

This is just one example of the way Du Pont "Mylar"—with a combination of physical, electrical, chemical and thermal properties never before available in a plastic film—is making possible better products and lower costs in an amazing variety of fields. You, too, may be able to use "Mylar" to advantage—only a little

research imagination may be needed to show you where. Mail the coupon for your free copy of a booklet that tells you more about this versatile film—and the ways it may help you develop a new product, improve an old one.

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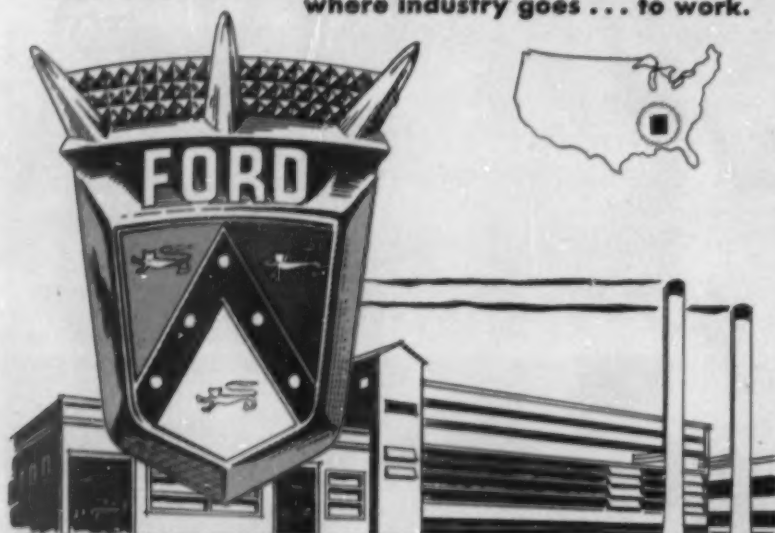
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ONE A WEEK, AND STILL COMING! Better than 50 new industries a year are locating on the lines of The NC&StL in the Central South.



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"... GSA says only that designs should not be in the traditional public building style. . ."

LEASE-PURCHASE starts on p. 110

Robert C. Robinson, Council Bluffs architect, and Brooks-Borg, Des Moines architect-engineers.

GSA chose them from 99 architectural outfits in Iowa from which it invited applications. Selection was on the basis of qualification, and applications had to be supported by photographs of past work. The lump-sum fee was fixed.

• **No Horrors**—Robinson says he's happy about the whole deal. The architects were given what amounted to complete freedom in design. GSA's only restriction was that the design should not be in the traditional public building (i.e. monstrosity) style. Robinson and Brooks-Borg submit their ideas to GSA and while this manner of doing business is maintained for lease-purchase contracts it should encourage originality and new accomplishments in design, Robinson says.

The new building will be erected on the site of the old post office. The government owns that land. In fact, all lease-purchase projects will be built on government-owned land. The sponsor will lease the land from the government, erect the building, then lease the whole package—including the land—back to the government. The government will pay local taxes on the building, but not the land, until it regains the title.

Amortized interest and principal will be a fixed sum. Local taxes and insurance, which will vary from year to year, will be paid separately. GSA will manage the building, handle all improvements, maintenance, and repairs. These rules will apply to all new lease-purchase projects.

Roland H. Tornblom, vice-president of Council Bluffs' State Savings Bank, and leader of the city's four-year campaign for a new post office building, says this type of financing makes for a "nice clean deal, and should encourage a low rate of interest."

• **Local Problems**—But there are roadblocks, Tornblom says. One of them is the fact that the \$1.6-million needed for the building would be tied up through the financing period of 25 years. The money won't be forthcoming locally, he says. Even the city's three banks together are not big enough to tie up so much money for such a length of time.

Some of these worries are peculiar to Council Bluffs. Elsewhere in the nation, similar deals are going to be



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plane you may be buying. At the same time you'll be interested in other airline-tested methods of assuring safety and economy — the Sperry Engine Analyzer** that literally reveals engine troubles before they become serious and greatly reduces maintenance costs — and Sperry Integrated Instrument System for simplicity of manual flying. Write our Aeronautical Equipment Division for full details.

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through savings of dictator's time, tran-
scriber's time... and through savings on
recording medium costs! There's no ob-
ligation.



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The man from Cunningham & Walsh



United Press photo

Any day now you are apt to meet
an advertising man turned salesman.
Here, for instance, is Joe Measner,
an art director of our agency.

Our copy writers, art directors,

account executives all work at the
point of sale at least one week a
year. That's an agency policy.

It is this kind of footwork that is
back of our advertising headwork.

Cunningham & Walsh, Inc. 260 Madison Ave. N. Y. 16 MU 3-4900

under way soon. Some of them are
already well advanced as the lease-pur-
chase program swings into action.

II. Over the Nation

Plans and specifications for three
more GSA jobs will be completed at
about the same time as those for the
Council Bluffs project. Averaging close
to \$2-million each, these projects call
for buildings in Rock Island, Ill., Lake
Charles, La., and Green Bay, Wis.
They'll house post offices along with
courts or other federal offices.

On about the same bid advertising
schedule—toward the end of this year
and the beginning of 1956—the Post
Office expects to seek tenders from
investor-builders for about nine lease-
purchase projects. Leading this list
are three small post offices or branch
stations costing \$60,000 to \$80,000
each in Scranton, Pa., Oxford, Pa., and
St. Mary's, Ohio. A little later, the
Post Office will be advertising for bids
on larger jobs now under design,
topped by a \$4.3-million terminal an-
nex for handling bulk mail at Den-
ver.

• **Only Beginning**—GSA and Post Of-
fice projects now coming up for lease-
purchase bids constitute only the first
topped by a \$4.3-million terminal en-
visages more than \$500-million of
private capital investment. GSA is
feeding to the Budget Bureau, as fast
as supporting data can be compiled,
proposals for 50 or 60 projects to be
submitted to Congressional commit-
tees in January. Approval of those
buildings will expand GSA's active
lease-purchase operations to \$250-mil-
lion.

The Post Office plans to submit an
equal number of new lease-purchase
projects next year, but the dollar value
will be less than GSA's. Looking
ahead, however, the Post Office has
ideas cooking for lease-purchase proj-
ects on more than 300 government-
owned sites, plus additional construc-
tion that may cost \$300-million for
mail-handling plants in 60 cities.

• **Planning the Job**—Private architect-
engineer firms do the design work for
all lease-purchase projects, and for the
Post Office Dept.'s big long-lease build-
ings. As it did for the Council Bluffs
job, GSA notifies all registered archi-
tects in the area—usually the entire
state—where a lease-purchase building
is to be erected.

The Post Office announces its up-
coming jobs in local newspapers and
waits for interest among architects in
the area. Technical representatives
from the department's real estate divi-
sion check each applicant's facilities
before selecting a firm and negotiating
a fixed-fee contract.

• **Getting It Built**—GSA will invite



Problem:

How would you protect this key motor?

STOCK A
COMPLETE
MOTOR? ☐

STOCK A
COMPLETE
ARMATURE? ☐

STOCK
ARMATURE
COILS? ☐

STOCK NO
CRITICAL
PARTS? ☐

TURN PAGE AND SEE G.E.'S *Productive Maintenance* ANSWER



GENERAL  **ELECTRIC**

HERE'S HOW A MAINTENANCE ANALYSIS SPOTLIGHTED SAVINGS OF \$150,000

(This evaluation is based on adequate motor protection in case of vital armature coils failure)

	NO CRITICAL PARTS STOCKED	ARMATURE COILS STOCKED	COMPLETE ARMATURE STOCKED	COMPLETE MOTOR STOCKED
REPAIR TIME	10 days to make coils ^x	6 days to rewind armature ^x	7 hours to install new armature	3 hours to replace motor
TOTAL DOWNTIME COST	\$168,000	\$100,800	\$4,900	\$2,100
COST OF PARTS PROTECTION	0	Coils: \$4,664	Armature: \$25,600	Motor: \$46,000
COST OF REPAIR	\$12,730	\$5,900	Installation: \$850	Installation: \$360
TOTAL FAILURE COST	\$180,730	\$111,364	<u>\$31,350*</u>	\$48,460*

^x Add disassembly, assembly and transportation time to actual time.

* Add repair cost, on straight time basis, of failed unit.

THIS IS AN EXAMPLE—taken from an actual case history—of how you can carry out Step 4 in General Electric's *Productive Maintenance* plan. To begin with, assume the worst: an armature failure which would require lengthy downtime, at \$700 per hour. The motor involved is a 500-hp slow speed d-c motor on a machine critical to production. When all figures are added, it is evident that stocking of a complete armature is the most economical protection for this specific motor. Your G-E representative can help you make the right decision about better protection for each of your critical drives.

THIS EXAMPLE SHOWS YOU HOW...

Productive Maintenance

The problem of keeping your key electrical equipment in operation isn't a simple one these days when the equipment and the production lines are becoming more and more complex. To solve the problem, you must bring to bear more maintenance know-how and specialized skills than ever before. More and more, the responsibility for increasing production—through more effective maintenance—rests on your shoulders.

**This *Productive Maintenance*
5-step plan can make
your maintenance budget
more effective . . .**



- 1.** Gather complete equipment data. A record system of this inventory is a basic part of your program.



- 2.** Determine amount of routine maintenance necessary for your system. Your G-E representative will help.



- 3.** Put your record system to work. Set up inspection cycles, work orders and systematized stocks.



- 4.** Inspect and evaluate all equipment vital to production. This data will help you determine the parts protection needed for each key item of electrical equipment.



- 5.** Establish a critical maintenance program by stocking parts on a planned basis and scheduling overhauls well ahead of the actual maintenance date.

CUTS TOTAL COST OF BREAKDOWNS

General Electric's five-step *Productive Maintenance* plan can help you meet this responsibility. This plan is essentially an application of men, materials, and tools. (See 5 steps at top of page) By organizing this idea into simple steps, you can get more effective maintenance, more production from each machine and a smoother work flow.

Your General Electric Service Shop or renewal

parts representative can give you the complete *Productive Maintenance* story. Ask him to arrange a showing of the G-E sound-color film on *Productive Maintenance* and to give you specific help and suggestions in setting up your own program. Or, fill in the convenient coupon on the next page and ask for General Electric brochure, "5 Steps to *Productive Maintenance*."

GENERAL  ELECTRIC

TURN PAGE FOR PRACTICAL HELP 

Call in a G-E representative for help in starting your own Productive Maintenance program



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bids from construction contractors and investors, along with joint bids combining the two fields from investor-builder alliances. Such combination bids may be conditioned upon the government's acceptance of both parts of the bid, if the joint bidders wish.

The construction bids will name a flat price for erecting and delivering a building. Investors will bid solely on the interest rate they will charge for the use of their money. Winning bidders will be those who offer the lowest net cost to the government; but there'll be a maximum interest rate of 4% set for lease-purchase contracts.

The Post Office's bidding plans for its lease-purchase projects are much more clean-cut. It will seek single package bids for a fixed term of 25 years. Each bid will list: (1) the estimated cost of the building, including all project development and construction costs, (2) the interest rate, and (3) the net cost to the government. Again, the bidder who offers the lowest net cost will get the contract.

III. The View Ahead

For the government, real savings are expected now that the program is getting under way. GSA, for example, is paying up to \$4 a sq. ft. yearly to rent modern air-conditioned offices in Washington. In lease-purchase buildings it hopes to get space for some \$2 a sq. ft. each year.

For private money, too, there's something, and GSA finds there's great interest in upcoming bids on projects in their localities among local banks, municipal governments, and business groups, pension, and welfare funds. But insurance companies that are now getting 4% to 4½% on lease-back deals with private outfits are lukewarm to the government program.

• **Long-Term Prospect**—For a view of the need for construction of federal buildings, you need only look back over the lists of eligible projects that GSA and the Post Office have submitted to Congress every two years since 1949. This year's list alone shows there are some 5,000 eligible projects that would cost around \$2.5-billion.

The new lease-purchase projects will eat gradually into this enormous total. In the long run, they won't be so cheap for the U. S. taxpayer as constructions undertaken by direct appropriation. Indeed, if the government ever gets back to having a balanced budget, it's likely that Congress would resume direct federal financing of new buildings.

Meantime, while the federal debt limit looms close above government projects, there's a wide new field open for private money. **END**



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MANAGEMENT



First, five years ago, Hercules looked for a field. John Fulenwider told David Wiggam to look at synthetics.

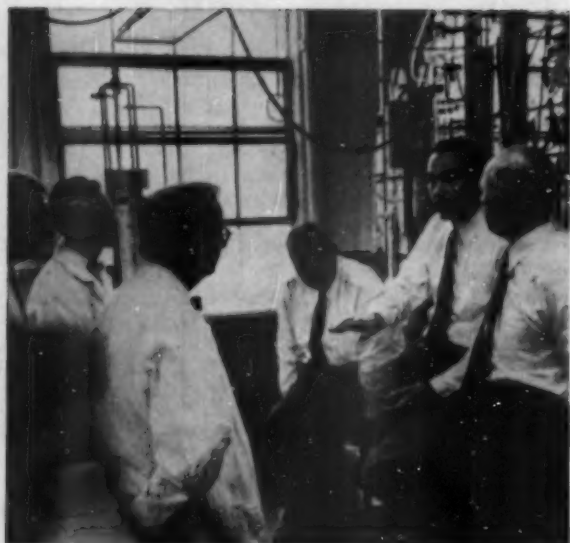


Hercules' research planning committee. They studied theory of a German process that might fill company's need for new product.

Dept. manager Elmer Hinner (standing) heads the new business. Here, he reports to Pres. Forster (left) and aides.



Hercules' scientists took over. Experiment station chief Dr. Peter VanWyck (left) directed Hercules' research.



Engineers and chemists got together to plan fitting of German process to Hercules' capabilities.

With deal nearly closed, board chairman Anson Nixon (left) gets view of new product's future from development specialist Walter Gloor.



Hercules' board O.K.'s \$11-million to build and start plant that will make Hyfax—the new product. From start to finish, deal took five years.

Hercules Makes Up Its Mind

Five years of soul-searching in the offices and conference rooms of the higher echelons of Hercules Powder Co., Wilmington, Del., came to an end this month, and the sometimes staid company headed out for battle in a fast-moving, often dangerous market.

For the men pictured at work on

these pages, the end of their five-year trail came with the company's announcement a few days ago that it is now ready to build a \$10-million plant in Parlin, N. J. By a new process, this plant will make low-pressure polyethylene and, Hercules hopes, this will be a dramatically improved entry in the

plastics raw materials market. If it's as good as Hercules and other chemical manufacturers trying to get into the new field claim, low-pressure polyethylene promises to be one of the hottest new chemical materials in the market.

Hercules is not the only company to be in on the new process, nor is it the



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first to get started toward full production of the material. But it's not far behind its competition. And, whatever the timing, the step remains somewhat breathtaking for Hercules.

The company has never been overly committed to pioneering. Since it was formed in 1912, after a government antitrust decree split up du Pont's explosives business, Hercules' growth has been remarkable more for its steadiness than speed. In easy steps, Hercules has moved into other raw chemical material lines—naval stores, cellulose products, and petrochemicals—and now explosives are only one component in the company's broad line.

In recent years (especially since Albert E. Forster became president in 1953) there has been new decisiveness in Hercules' planning its future. Always spending heavily for research (outlays for which have been exceeding 4% of sales, against du Pont's 3.6% and Monsanto's 3.1%), Hercules seems willing to add more emphasis to market development. It's tired of being a sleeping giant, and wants big growth. In turn, that implies for Hercules, as for any company, a sharper eye to what competition is up to.

• **Credo for Chemicals**—Forster outlines this thinking thus: It's no good to be last with the best in the chemical industry today. To really grow, you must have something new and better; you have to steal a march on competition with a product or a process that has advantages of real merit. You have to gamble that your competition won't come up tomorrow with a new idea that will make obsolete the venture to which you're committing your company today.

The new polyethylene plant at Parlin is probably the best illustration of Hercules' new willingness to accept longer odds. How and why Hercules got set to build the plant is probably best described in terms of the series of key decisions that preceded it. This story is almost a primer on complex decision-making.

I. Growing Ideas

In 1950, Hercules' cellulose products department (one of six operating departments in the company) was topping off a nice 10 years. It was selling cellulose derivatives for, among other things, the manufacture of fibres (like Rayon), plastics, film, foil, and protective coatings. Its products were called "natural" high polymers because they were derived from nature, rather than through a man-made process. The sources were largely cotton linters and wood pulp, in which natural chemistry formed "long" molecular chains giving a material that, when suitably processed, can be formed or extruded.

But John Fulenwider, then the general manager of Hercules' cellulose products department, noted that many competitors were making substantial progress in producing synthetic high polymers from petrochemicals. These went into some of the miracle fibres (Dacron and Orlon). In effect, they were getting into the same end-market that Fulenwider's "natural" high polymers went to, although they had slightly different qualities.

• **Big Switch**—This gave Fulenwider reason to pause. Some 40% of his sales came from high polymers and \$40-million in capital investment was in the cellulose side of the house, all geared to the production of natural high polymers. But Fulenwider still had to decide whether Hercules would get best growth from the synthetic or the natural product.

Here, Fulenwider was in the near-classic situation of many managers in fast-moving industries. He had to make a vital decision on the aiming point of his business—and the time for decision had been forced upon him largely by the pressure of his competition.

To end the uncertainty he had to determine (1) whether his department would suffer by getting into the market late, (2) whether the synthetics would really pan out, and (3) whether something better would come along, leaving him even further behind, and with a big dent in his treasury.

He called in David Wiggam, development manager and long-range planner of the department. Wiggam got this charter: Check all the domestic and foreign markets and the principal producers of synthetics. Find out what's new and has most promise. See what products have not yet hit the market hard, for these might give Hercules an entering wedge. Look over all your findings on the basis of Hercules' knowhow, capacity, and finances.

Domestically, Wiggam found only discouragement. The field was blanketed with synthetic producers, and little was left for Hercules.

But in Germany, Wiggam struck gold. He got the tip-off from Max Riermersma, a Dutch chemist who for some 30 years had been Hercules' European scout. In October 1950, during one of Wiggam's periodic trips to Europe, Riermersma told him that Prof. Karl Ziegler, a German chemist, was near success in his work on a new catalyst for synthetics. If it worked it would point the way to a new process for making high polymers, thus opening a whole new field of plastics chemistry.

Wiggam saw Ziegler and studied his work at the Max Planck Institute, a quasi-government research center, much of whose work goes to a group of 20 or 30 Ruhr coal companies.

• **In at the Start**—Ziegler had a long

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way to go with his experiments. Reluctantly, Wiggam saw there would be no immediate pay-off. So he got Ziegler's word that he would be informed when the experiments came close to fruition, and then continued searching for new ideas. (His scouting expeditions, significantly as it turned out later, took him to the plant of Farbenwerke Hoechst A. G., a German company of scope and size similar to Hercules.)

It was two years before word came from Ziegler. In September, 1952, he told Wiggam he had found a way to synthesize para-xylene (a scarce raw material used in making Dacron) and polyethylene (a basic plastic material made from ethylene, a cheap refining by-product). Hercules immediately signed a year's option with Ziegler to purchase these discoveries if it should prove they could be produced in commercial batches.

• **False Start**—This decision to back Ziegler's work almost came a cropper immediately. The para-xylene process proved more expensive than Hercules' own methods of producing similar materials. Also, his polyethylene process couldn't, at this time, produce polymers so long as those already being made by the current process in use in the U.S.

II. Pressing the Hunt

But two things kept Hercules' interest high. One was Wiggam's insistence that Ziegler's method, which used a low-pressure process and therefore was much cheaper, would eventually pay off. The second was that the Ziegler method, using extremely cheap (4¢ to 6¢ lb.) ethylene as a base material, could—*theoretically*—anyway—produce polymers of great length. And if that were ever possible, Ziegler polyethylene could be made into plastic materials of far greater durability, stiffness, and machineability than anything on the U.S. market made under older methods.

In October, 1953, Ziegler made the break-through.

Hercules' management quickly decided to get Ziegler to license the process to them exclusively in the U.S.

• **Out Again**—The crusher came when Ziegler pointed out that the low-pressure method didn't fall under the Hercules option agreement. Patent studies bore him out. What he had was a new discovery beyond the scope of the option and he decided to license it non-exclusively. He had plenty of U.S. customers, Union Carbide & Carbon Corp., Koppers Co. Inc., and Goodrich-Gulf Chemicals Corp., being among the first to snap up a license. (Reportedly, Ziegler gets one-third of the revenues paid to the institute for his findings. If true, he's a rich man on this single discovery.)

Under the impact of this blow, Her-



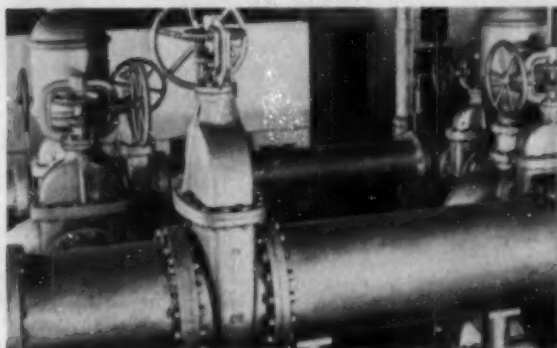
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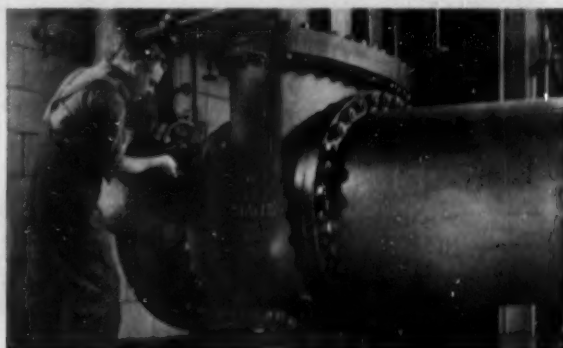
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cules' hopes sagged. Instead of being in the market first and exclusively, they found themselves right back among the pack, with some half-dozen other domestic competitors who were going all out to whip the basic Ziegler chemistry into full production shape.

Up to this point, dickering with Ziegler had cost Hercules only about \$10,000 and some of the people close to the Ziegler project consoled themselves with the idea that the theory was still pretty much untried in commercial production.

But Fulenwider's research technicians told him the Ziegler chemistry was sound, and even if Hercules could not be in on it exclusively, the method opened other doors behind which Hercules might find what it wanted.

III. Hopes for the Pay-Off

Hercules signed an agreement with Ziegler in September, 1954, and put its research teams to work. Before the end of the year, Hercules had a pilot plant turning out low-pressure polyethylene, and the research and development effort was redoubled. By the spring of this year, the company's research budget for the project was nearly \$200,000 a month.

In the middle of this flurry, Fulenwider was promoted to vice-president. His successor as general manager of the cellulose products department, Elmer F. Hinner, picked up where he left off.

He noted, from Wiggam's reports that the Hoechst company was also well along with Ziegler chemistry. In fact, it had had it earlier than any U. S. company, was already through the pilot plant stage, and was designing its commercial plant. Right after the turn of the year, Hoechst people, during one of their several visits to Hercules, suggested that there might be a basis for cooperation between the two companies on the development of the Ziegler process.

Hinner and Hercules jumped at this opportunity. On Feb. 8, Hercules' executive committee met to work out the ground rules for a contract with Hoechst. Next day, the board of directors met to continue the discussion and give whatever approvals were needed. Three days later, a high-powered team composed of board chairman Anson B. Nixon, Fulenwider, Hinner, and new product development specialist Walter E. Gloor, flew to Germany and in two weeks wrapped up a contract with Hoechst.

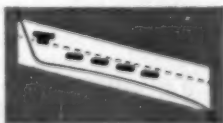
The contract specified that Hercules get the extensive Hoechst research and development information, plus, before the end of the year, enough low-pressure polyethylene to pass out to Hercules' customers for full-scale trials in their molding presses. This saves at least 18 months that Hercules would

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otherwise have spent on process and plant development, says company president Albert E. Forster.

Hoechst gets between \$1-million and \$2-million for its part in the deal. But it wasn't money they wanted, Hoechst people insist. Besides the technical knowhow that the two companies agreed to exchange, Hercules can tell Hoechst a lot about U. S. marketing methods.

Market research gave strong indications that the new, tougher polyethylene would get good acceptance right from the start. But this big question remained: would the technical and marketing advantages Hercules felt it had be strong enough to meet the financial specifications that the company lays down for each project?

On Sept. 30, Hercules' board said "Yes." It made the final commitment by approving the project and appropriating the money necessary to build the Parlin plant from the modified Hoechst designs.

The plant is expected to go on stream early in 1957 with an optimum capacity of 25-million lb. of low-pressure Ziegler polyethylene a year. And Hercules feels that's only the first of many new plastic materials to come out of this venture.

At the start, Hercules figures its new polyethylene, which it is calling "Hy-fax," will bring about 50¢ a pound compared to about 43¢ for conventional high-pressure material.

IV. Question of Cash

The plant will cost \$10-million and it will need about \$1-million in working capital. It's not enough, though, for this plant merely to return a profit. The chemical industry is growing too fast for its money to be tied up in anything less than the best earning ventures. Hercules is growing at 5% a year. It has to get into a business that will grow at least that much—and that will finance continuing growth.

Hercules figures Parlin must produce each year enough money to pay \$550,000 in dividends (from profits) and provide another \$550,000 (partly from profits, partly from funds accumulating in depreciation reserves) that can be reinvested to insure the company's continuing growth. The plant must also produce another \$300,000 a year for continuing modernization to offset rapid technological obsolescence in the industry. Because part of these funds will come from depreciation reserves, Hercules figures the plant will need to earn a minimum net of only \$650,000 after taxes (6% on its investment).

More important, perhaps, it will, as Hercules' president puts it, get the company fully abreast of the competition, put it among the first with production quantities. **END**

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THE MANAGEMENT PATTERN

Spurt in Executive Health Plans

PRES. EISENHOWER's illness has focused attention once more on a subject that has long been a concern of businessmen: the stresses and strains of high executive responsibility, and their effect on health.

The shock of the news from Denver wasn't necessary to sound the alarm. It merely confirmed what management in many companies already knew. During the hectic pace of World War II and the booming postwar period of expansion, management became acutely aware of the danger of losing vital executive manpower prematurely through sudden illness or death.

Naturally, there will be some companies that will take the President's illness as a reason to review their own activities in preventive medicine. For the most part, though, the corporate executive is already—as the President was—well attended as far as his health is concerned. In fact, it is probably safe to say there are few groups in the country that get better attention or more advice.

WHEN BUSINESS WEEK checked up on the reaction of companies to the President's attack, almost invariably the answer from executives or company medical directors was: "We can't do much more than we're doing now."

In fact, on the West Coast, General Petroleum Corp.'s medical director, Dr. E. P. Luongo, thinks there is a "tendency to make a big problem out of the executive." He says (1) executives have better health habits than non-executives, (2) everyone is making a neurosis out of the fact that executives die from heart attacks, and (3) executives should stop worrying about working so hard.

If what he says—that executives are pretty healthy fellows—is true generally, part of the reason may be the growth of executive health programs in the past decade (Dr. Luongo has been at General Petroleum for eight years). In the last 10 years, clinics and medical checkup resorts have become thriving businesses. Places like the Greenbrier at White Sulphur Springs, W. Va., have installed week-long programs for individual

executives, usually ordered there by their companies (BW—Sep. 23 '50, p84).

Life Extension Examiners, a nationwide service started 40 years ago, had only 26 corporate clients on its executive examination list in 1946. Today the figure is about 300, including companies like U. S. Steel and General Motors (BW—Sep. 11 '54, p101).

A TYPICAL COMPANY program will include health examinations every two years for men under 40, once a year for those over 40. Executives—and some companies carry the program far down the ladder—are expected to take three or four days off for their physicals. Findings are turned over to the individual, with recommendations for action by private physicians if need be.

Such programs can pay off. U. S. Rubber Co., checking up after six years of experience, found a marked decrease in health defects among its key personnel.

Still, even with widespread use of executive health programs, the President's experience probably will intensify interest by businessmen.

Reports from scattered points—Atlanta, Albany, Philadelphia, for instance—showed a marked upswing in requests for cardiac examinations, many of them from businessmen. This rise of interest often happens—and then dies down—when a dramatic event such as Pres. Eisenhower's attack takes place.

Longer-range effects are harder to nail down at this point. But in the Southwest, a banker says a mandatory checkup plan, under study for some time, now will be officially installed Jan. 1. Vacations, too, will be lengthened from four to six weeks for top people. A Cleveland steel company president warned his staff at regular meetings that he wasn't kidding about executive checkups, pointing to Eisenhower's illness as a reminder. As in many other companies, this company's health program goes back about five years. The reason for this timing: In 1950, the company lost a couple of top people because of heart attacks.

✓ Industry wipes out corrosion with Firestone Exon Resins

NEW PVC "SANDWICH"

starves out corrosion!

High speed silver plating solutions are not only corrosive, but they must also be kept free from contamination to perform satisfactorily. Various plasticized types of coatings were quickly corroded by the special inorganic addition agent in the silver solution. Unplasticized PVC was suitable, but could not be bonded to a steel tank.

Comco, Inc., New Haven, Connecticut, solved this problem for General Electric Company's Philadelphia Switchgear Plant by fabricating a huge hot-rolled steel plate tank able to support the 200 gallons of special silver plating solution and lined it with VYFLEX FL-85.*

This remarkable lining, only .085" thick is actually two sided. One side is rigid Unplasticized PVC made of Exon 402-A resin, which is exposed to the silver plating solution stopping corrosion and preventing contamination. Its back is Plasticized PVC based on Exon 900 series resin, which, by being laminated to the Unplasticized PVC, makes possible the lining of metal tanks with Unplasticized PVC, and overcomes the varying rates of expansion between PVC and steel.

Another proof of how effectively a corrosion problem can be solved by the unusual versatility of resins engineered by Firestone.

Flexible PVC bonds Rigid PVC to steel tank—permanently!



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*Vylax FL-85 is made from Exon resins •Product of Kaylor Industries, Inc. Division of Kayo-Tex Mfg. Corp., Yardville, N.J.

The simple fact is: You can stop corrosion. EXON PVC resins are the bases for a wide variety of corrosion controlling materials. In the form of lightweight structural rigids, linings or coatings,

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In Management

• • •

Esso Sets Up Foundation To Help Private Colleges

Standard Oil Co. (N. J.) has joined in the foundation swim by forming the Esso Education Foundation, an organization that will assist privately supported colleges and universities.

This year, with the aid of a group of educators, the foundation will distribute some \$1.5-million. From the foundation's structure, you get an indication of one current problem affecting corporate giving: The educator-advisers wish to remain anonymous to avoid pressures from slighted applicants and hungry friends.

To feed colleges' hunger for funds, business has been coming across at an increasing rate. This year, colleges expect to get about \$100-million from various company sources. A good part of this will come from the corporate foundations, which have grown strikingly since the end of World War II (BW-Jan. 8 '55, p128). This year alone, industry has started some 50 of these nonprofit institutions.

• • •

For 300 Chances, the Choice Is Plastics and Packaging

Crompton & Knowles Loom Works, the large Worcester (Mass.) textile machinery firm, is picking up two more companies for its planned diversification program (BW-May 8 '54, p120).

After investigating almost 300 possibilities, it has purchased Wrap King Corp. of Holyoke, Mass., a packaging machinery company, and Carl N. Beetle Plastics Co., Fall River, Mass., a fiberglass reinforced plastics manufacturer. Since sales in textiles began slipping, the company has turned to diversification in the manufacturing field. Its aim is to stay in manufacturing, where it has experience and strength.

• • •

Piasecki Battles on Against Regime That Ousted Him

More quarrels at Piasecki Helicopter Corp. are highlighting problems in management stock options and stockholder relations.

Frank N. Piasecki, founder of the company, and still a director, was recently eased out as chairman (BW-Jul. 23 '55, p46). Now he is requesting proxies against a proposed management stock option of 30,000 shares. He says the option would dilute holdings, put the present management in controlling ownership of the company, and leave minority stockholders with no real voice. The 30,000 shares involved represent 3.4% of authorized stock, and almost 7% of outstanding stock.

Background to the row is this: When Piasecki was ousted as chairman of Piasecki Helicopter Corp. he formed a new company called Piasecki Aircraft Corp. After that, the original company called a stockholder meeting (scheduled for Oct. 27) at which it will propose: (1) changing its name to Vertiplane Corp., (2) changing the number of its directors from 11 to 13, and (3) setting aside those 30,000 shares of stock for management.

Frank Piasecki goes along with the first two proposals but balks at the third. Since he and his group of former company executives wouldn't be included in the stock option, its approval would cut their share of holdings from 25% to 23.4%.

• • •

Railroads Will Put Reservations Into Big Computers' Hands

To coordinate traffic on their various lines, some railroads have turned to electronic computer systems. Now, three of them are taking this concept one step further. The Santa Fe, New Haven, and New York Central railroads plan to tie in within a year to a coast-to-coast electronic network for passenger reservations.

Teleregister Corp., Stamford, Conn., will build and rent the network to the railroads. Its president, S. J. Sindeband, says other roads may join the system.

Eventually, he hopes, all forms of transportation will be linked by a nationwide passenger reservations network. His company already has built a relatively simple reservations network for airlines.

Within seconds, a passenger will find whether his reservation can be accepted. And if the reservation can't be made, the machine will suggest alternative reservations that are still open.

• • •

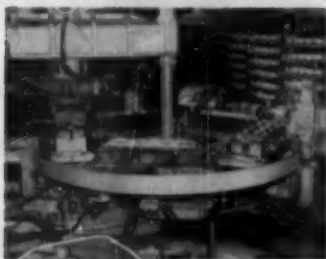
Management Briefs

Ford Motor Co., in conjunction with its dealers, is stepping up the sales and public relations effort on which it has been working in the nation's driver training schools. Ford will spend \$7-million on the effort this year, and its dealers will place some 3,500 cars at the disposal of school authorities for driver training. This means that almost half the cars in driver training programs this year will be Fords.

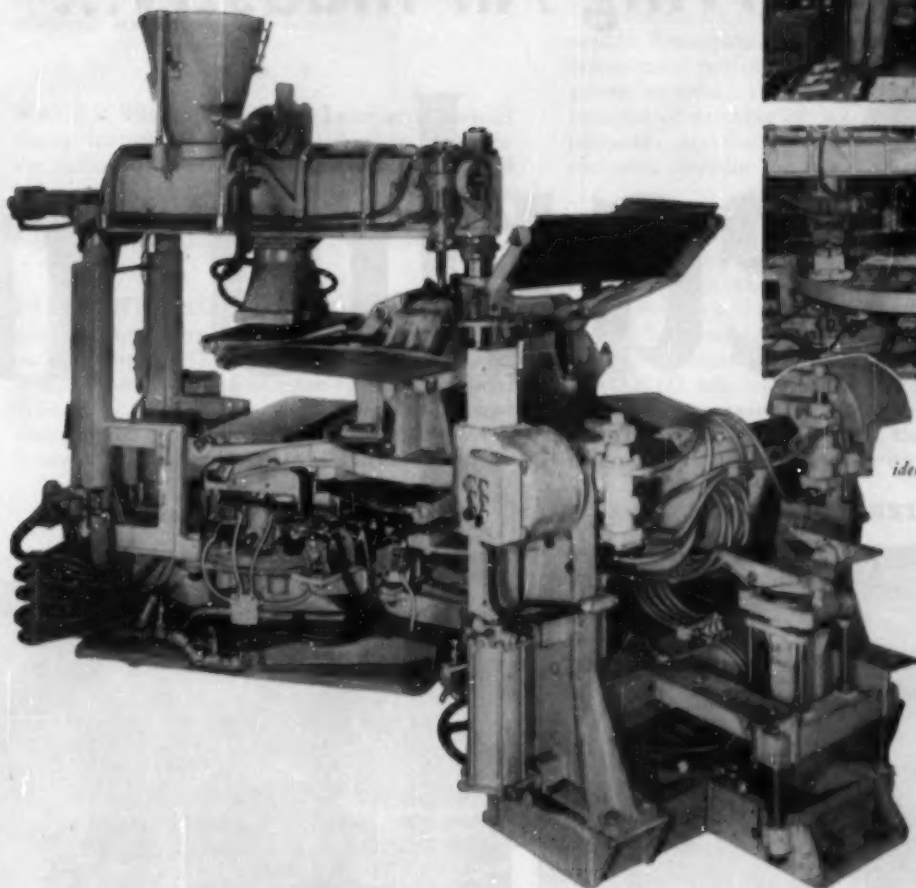
Pennsylvania RR has announced the first of its major personnel changes designed to fit its new organizational setup (BW-Oct. 8 '55, p80). Most important change: James P. Newell will be top operating vice-president, and the company's nine new regional managers will report to him.

Reichhold Chemicals, Inc., one of the country's biggest one-man corporations (BW-Jan. 26 '52, p116), will become a publicly held corporation if present plans go through. Chmn. Henry Reichhold wants to merge his synthetic resin company with Catalin Corp. of America, another chemical outfit. Reichhold's domestic sales are around \$50-million; Catalin's are about \$15-million.

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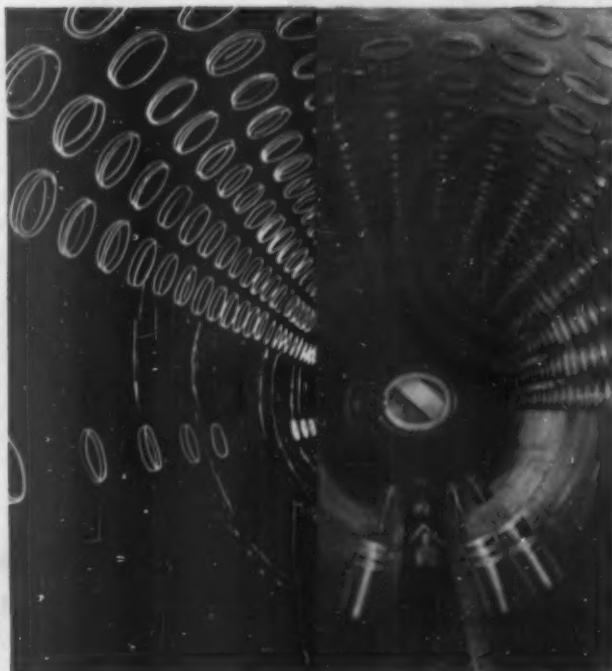
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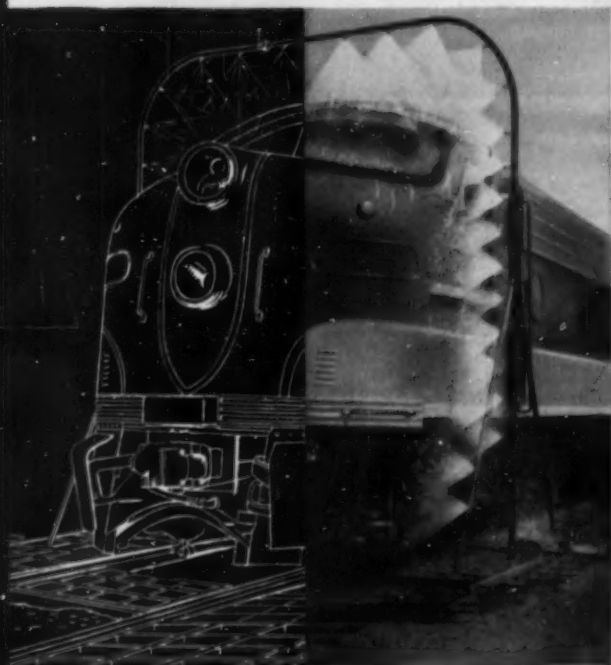
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NO-OX-ID RUST PREVENTIVES



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Too many empty seats—that's the problem of Martin Haske, owner of the Syracuse Chiefs baseball club. He may lose his franchise to Miami. It's a sign of times everywhere as . . .

Spectator Sports Lose Out

Baseball fans in Syracuse, N. Y., may have to get used to the desolate scene pictured above. For years, their International League team, the Chiefs, has been losing patrons and running in the red. Talk this week is stronger than ever that Syracuse will lose its franchise to Miami, Fla., next season.

Syracuse has a name as a good sports town, yet it has already lost its professional hockey franchise to Springfield, Mass., and its championship National Basketball Assn. team was almost sold to Detroit last summer. The NBA Nationals are still not out of the woods.

• **Nationwide Trend**—What's happening in Syracuse is happening all over the country. Spectator sports in all but the largest cities—and in a few of them, too—are struggling to survive in the new pattern of consumers' living habits (BW—Sep. 12 '53, p142; Sep. 19 '53, p144).

The new stress is on leisure time at home—centered around the workshop,

the garden, and the television set—and on the participant sports such as bowling, golf, boating, fishing, and hunting. In the competition for the recreational hour and dollar, the spectator sports have been losing out in recent years.

The trend has small-city businessmen wondering how to protect the trade that sports bring to their cities.

"A baseball, football, or basketball team is worth dollars and cents to any community," says Frederick E. Norton, secretary of the Syracuse Chamber of Commerce.

"Without professional sports, you have a ghost town," agrees Forest McGuire, executive secretary of the Manufacturers' Assn. of Syracuse.

• **Losing the Glitter**—For four years after the war, professional sports basked in a golden age. Veterans were back, both as players and as paying customers; attendance rose far faster than operating expenses.

In 1948, the peak year, baseball's major leagues had a combined attendance of 20.9-million. That's twice the figure for the last prewar season, in 1941. It's also a peak that melted away. Each year until 1954—when the majors' second franchise shift took the Browns from St. Louis to Baltimore—attendance slipped a little or a lot. Now, with a third franchise change (Athletics from Philadelphia to Kansas City), the leagues have made a slight comeback—up 680,400 this year to 16.6-million.

The National Football League and the National Basketball Assn. also show attendance gains in the past two years, but nowhere near enough to match previous highs. Ring Magazine estimates that professional boxing, too, is drawing only two-thirds as many paying customers as it did earlier.

• **Minor Tragedy**—Meanwhile, the minor leagues in baseball, and the weaker teams in all professional sports,

have been denied the small upturn of the last two years. Their course has been steadily downward. For example, in 1949, there were 59 minor leagues in professional baseball; they drew a record 42-million patrons. Last year, there were 38 leagues, and they drew 20-million, with a probable decline again this year.

In the small cities, teams have folded at a spectacular rate (BW—Aug. 14 '54, p84) and whole leagues have collapsed despite frantic reshuffling of franchises. Right now, Syracuse isn't the only International League team that's shaky; Buffalo, too, is on the verge of losing its franchise.

Just last week, the Kroger supermarket chain bought the ball park of the defunct Toledo Sox of the American Assn., as a site for a new shopping center.

• **Play It Yourself**—In contrast, participant sports are flourishing everywhere. The Associated Press now ranks bowling as the nation's third greatest sport, drawing 17-million last year. (Horse racing was tops with 50.5-million, and professional baseball second with 35.6-million.)

The leisured suburbanite devotes more of his time and money to the sports he can take part in—which can even be stretched to include horse racing, since most people go to bet rather than merely to watch.

• **Why the Shift?**—The downtrend in spectator sports attendance dates from 1949, the year when television took hold, and TV is often blamed as the main culprit. However, most people in the sports business will admit that it isn't the sole cause, and some will say it has even helped attendance by building new interest in sports. Whatever the truth may be, professional sports have turned to TV revenues to make up their losses at the gate.

Among other causes, you can see traffic congestion and poor parking facilities at most downtown stadiums and arenas, lack of effective promotion, failure to meet the fans' TV-upgraded standards of play (Baseball Commissioner Ford Frick has hired a research team to study the effect of such things as length of ball games, often criticized).

Most of all, though, the loss seems to stem from the average fan's changed habits of living. He lives farther out of town, has a bigger family, has more time for travel and participant sports—besides owning a TV set.

The sad saga of professional sports in Syracuse is a case in point.

I. Decline of a City

Syracuse, a city of some 230,000, draws from a shopping area of nearly 1-million. For sports, it has a modern baseball park seating 10,000 and a new

9,000-seat, \$3-million arena—the Onondaga County War Memorial—for indoor events. The presence of Syracuse University stimulates further interest in sports, particularly football and basketball.

Yet here's what has happened:

In hockey, the Warriors in the professional American Hockey League were the first Syracuse team to succumb. They wound up the 1954 season with 800 customers rattling around in the arena's 9,000 seats, and a deficit rumored to be \$100,000. Before the town knew it, owner Eddie Shore had moved the team to Springfield, Mass., in a lower-ranking league.

In baseball, the Chiefs—who drew 280,000 fans in 1947 when Hank Sauer was hitting 50 home runs and Ewell Blackwell was whipping the ball past opposing batsmen—sagged to 117,000 in 1954 with a fourth-place team. They lost \$81,000. This season, needing 200,000 fans to break even, they drew only 110,500 with a fifth-place team, probably lost even more.

In basketball, the top-ranking Nationals lost \$50,000 by midseason last year, though the deficit was cut to \$12,000 by the end of the season in April. Earlier losses had caused general manager Leo Ferris almost to sell out to Detroit in the summer of 1954, and the team was saved only by a citizens' committee that floated \$200,000 worth of stock among 150 businessmen and local fans.

All this trouble in a city that in 1949 drew 80,000 spectators for an auto race.

• **Baseball**—Eugene J. Martin, general manager of the Chiefs, frankly attributes the situation to the new pattern of living, increased operating expenses of professional sports, increased competition for the sports dollar, and a need for more colorful new players.

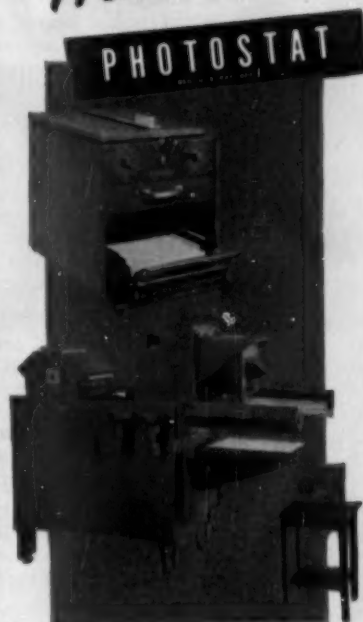
An example of changed habits is what one fan said about the length of ball games: "I used to go to the ball games all the time. Haven't been to one now in five years. They take too long—a three-hour game is too much for me."

Martin thinks poor promotion is partly to blame. "Let your competition help you," he says. "Before the games, have golf clinics and exhibitions, maybe a fly-casting demonstration for fishermen."

Above all, he urges, sports promoters shouldn't pitch their campaign on a plea basis. When you beg fans to come out to save the team, it doesn't work, he says. This week, a mayor's committee has counted up only 1,200 replies to a drive to line up support for the Chiefs; the campaign needed 10 or 100 times as many pledges. Betting says the Chiefs will move their franchise to Miami this winter.

• **Basketball**—In pro basketball, the Nats

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THE PACKAGING NEWSFRONT

Sales of unique "Party Ice Cube Trays," which freeze ice in the shape of spades, hearts, diamonds and clubs, have jumped 600 percent since the manufacturer began packaging the trays in colorfully printed Bemis Polyethylene Bags.

During the first season the trays were on the market, they were packaged with a wide wrap-around label. The next season the manufacturer switched to Bemis Poly Bags with Fine-Weld® seam construction. Sales immediately zoomed.

"Party Ice Cube Trays," made of flexible plastic, are sold largely through department and variety stores.



Packaging changes that cut packaging material cost more than half are reported by a division of one of the country's largest floor covering manufacturers.

Large swatches of all new rug patterns woven by this maker are sent to all sales outlets throughout the country. Originally the groups of swatches were sent in cartons, but, after a thorough test, the manufacturer switched to Bemis Multiwall Paper Bags.

Besides costing less than half as much as the cartons, the Bemis Bags take less storage space, are easier and cheaper to close, and save substantially in shipping charges because of their lighter weight.

The problem of an economical shipping container for caustic material such as soda ash has recently been solved by certain eastern manufacturers through the use of a special multiwall bag made by Bemis. This bag is a sewn valve type with a polyethylene-coated inner sheet.

Drums, which were previously used, cost approximately 65 cents per hundredweight, including the cost of closing the drums and preparing and attaching the necessary labels.

The cost of Bemis Bags, including filling and closing labor, is approximately one-third of this amount per hundredweight. Since the bags are printed, it is unnecessary to attach labels.

Further savings have come from the economy of storage space of both empty and filled containers and from the lower shipping costs due to reduced weight.

You can answer so many needs with Bemis products . . . both in and out of the packaging field. If you need a package that will increase sales, give better protection to your product, or simply save you money . . . or if you are interested in other Bemis developments in paper, textiles or plastics . . . consult us. Bemis products meet an astounding number of industrial, commercial and recreational requirements, and new ones are continually coming to light. You may want our engineers to create a new package, or to advise you on packaging methods. Please write us.

Bemis



408 D Pine Street
St. Louis 2, Mo.

"... the fellows that used to caddy are playing golf themselves now ..."

SPORTS starts on p. 136

are being more effectively promoted. Ferris resigned as general manager last January, and Robert Sexton, public relations director, succeeded him.

The first thing Sexton did was stop playing games on Thursday and Sunday nights, when the top-drawing TV shows were on the air. Sunday games were shifted to the afternoon with cut rates for children. Attendance quadrupled (an average 1,500 rose to 6,000), and the \$50,000 deficit shrank to \$12,000 in less than three months.

Sexton is pushing advance sale of tickets for the coming season, aiming at 1,000 sales. He even has the players out selling them (pictures, opposite page). He is also running barnstorming tours of the team to whip up interest in neighboring towns and sponsoring basketball clinics for school players.

• **Competition**—Meanwhile, the participant sports continue to gain in Syracuse. The local Chamber of Commerce says the city has 50,000 golfers (a gain of 1,000 a year for 10 years) and 45,000 bowlers.

"More people in lower income brackets are spending their money on golf," says a country club official. "The fellows that used to be caddying are out there playing now."

A sporting goods storekeeper estimates a 50% boost in equipment sales in the past 10 years; a department store manager puts it at 25% in five years, mostly in stuff for hunting, fishing, boating, golf, bowling, tennis. Joseph G. Kren, Inc., used to make baseball bats for professional players, now concentrates on junior sizes for Little Leagues and the like.

II. Value of Sports

Why is it so important for Syracuse, and dozens of cities like it, to fight to save spectator sports? Cold figures are hard to pin down, but it is agreed that sporting events mean money to stores, hotels, restaurants, bars, transit lines, and even local manufacturing companies.

Martin of the Chiefs and Sexton of the Nats estimate that each of their teams brings Syracuse \$250,000 a year in added sales. Several promoters are convinced that a new hockey team could do the same, at least one is dickering for a franchise to replace the lost Warriors. These estimates include payrolls and supplies as well as the dollars brought in by the visiting fans.



BASKETBALL STAR Dolph Schayes of the champion Syracuse Nationals sells a preseason ticket to a local banker as part of the team's drive to assure a breakeven next winter.



BASKETBALL TALK helps to stir up interest in ticket sales. Schayes, second from left, talks it up with salesmen at a Syracuse used car lot.

• **Good Publicity**—Merchants and promoters alike say a team brings valuable publicity to a city. A Syracuse man tells of overhearing two Brooklyn fans at Ebbets Field last season who were speaking with admiration of the Nats' rivalry with the New York Knickerbockers in pro basketball. The Brooklynites wound up by agreeing they ought to go up and see what kind of town Syracuse is.

Fred Norton of the Chamber of Commerce says: "People like a town that shows community spirit, as a place to shop in, work in, live in."

Manufacturers evidently feel the

same way. When Sylvania Electric Products, Inc., was looking for a site for its new Univac electronics center, it sent questionnaires to several cities, asking at some length about the sports facilities available for its employees. Other companies with Syracuse plants, such as Easy Washing Machine Corp. and General Electric Co., agree with the importance of this factor.

So does John J. Maurillo, assistant regional director for the CIO. "Sports of any type bring the right kind of living, plus increased revenue, to any town that can support them," he says. **END**

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Send for Bulletin 63-D describing Standard's gravity and power conveyor units. Address Dept. BW-105

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New Props for Borderline TV Station

● The industry has come up with two new ways of aiding struggling small town and rural stations.

● NBC is offering cut rates to advertisers in a package scheme for 44 less fortunate affiliates.

● A Scranton station plans to help set up two nearby "associates" and supply them its network shows.

For some months the television industry has been increasingly bothered by the problem of the so-called marginal stations—the stations, both ultra high frequency and very high frequency, in smaller towns and rural areas that can't seem to be made to pay for themselves.

Various measures have been applied. General Electric recently joined with other private groups to offer financial and management aid to faltering stations (BW—Mar. 26 '55, p. 45). The Federal Communications Commission has authorized "booster" or "satellite" stations in order to extend the range of TV stations covering sparsely populated areas. The major networks have offered programs free to stations unable to get national advertisers, with a view to building up these stations' programming and hence their audience.

Last week came two important new moves in the industry's fight against its persisting problem:

National Broadcasting Co., formally announced something called Program Extension Plan—or PEP for short. In brief, what NBC has done is to (1) lump into one package 44 of its affiliated stations that have been most ignored by national network advertisers, and (2) offer time on these stations to advertisers at cut rates.

A UHF station in Scranton, Pa., WGBI, has come up with a plan to help establish two "associated" stations in towns in an adjoining area of eastern Pennsylvania (Williamsport and Sunbury). These stations would carry all the Columbia Broadcasting System programs now carried by the "mother" station in Scranton, thus extending WGBI's coverage into an area now largely served by community antenna systems. The two small local stations would not technically be satellite stations since they would operate on their own channels and would originate some local programs.

Of the two ideas, the Scranton approach is the more novel. However, NBC's move is apt to have the greater immediate impact on the TV business.

• **PEP Plan**—NBC's 44 PEP stations are almost all in smaller cities, like KRBC in Abilene, Tex., and WHIZ in

Zanesville, Ohio. All but 14 of these are VHF stations. Should an advertiser want to buy time in the prime evening hours on all these stations, it would cost him \$6,325 an hour. But NBC has made the use of these stations more attractive by offering a discount plan.

If an advertiser spends \$1,500 to \$2,249 scheduling his show on any group of these stations, NBC will throw in a 50% dividend in the form of free time on other PEP stations. If he spends up to \$2,999, there's a 75% bonus; over that, a 100% bonus.

NBC foots the bill. That is, it gives the advertiser the discount but pays the station the full rate for network time.

All told the market covered by these stations comes to about 1.1-million sets. NBC makes the point that it is not a saturated market in terms of TV programming from other networks.

NBC's idea is to give these stations a start so that they can build eventually an audience and advertising revenue. The problem has been circular: The stations haven't had the audience because they couldn't get the programs, and they couldn't get the programs because advertisers found they had poor audiences.

• **Precedent**—PEP is not an entirely new idea. It is an enlargement and refinement of a plan started by Columbia Broadcasting System a year ago. Called Extended Market Plan, this includes 23 stations.

The basic idea is about the same. But in CBS's case, the station rates are pared down by the number of sets in each station's area that are covered by other CBS stations. CBS does not make up to the station the difference between the special discount and the station's regular rates.

• **Enlargement**—At the same time, NBC has also moved to strengthen the position of marginal stations by enlarging its Program Service Plan. Under this plan NBC offers network shows to stations even though these stations haven't been bought by network advertisers. If a station wants to pick up a network show, it can do so—minus com-

mercials. NBC is adding the Colgate Variety Hour, Color Spread, and several other shows to the list. (CBS has a similar plan operating.)

• **Scranton Deal**—Scranton Broadcasters, which operates WGBI, has worked out a plan whereby, in the words of a spokesman, "Local stations can exist without network affiliation."

The Scranton concern has a peculiar problem and opportunity. Tucked away in the folds and mountains of eastern Pennsylvania, it finds it difficult to get its program to sets beyond the metropolitan area. Furthermore, the region just adjacent—in which Sunbury and Williamsport are located—is dotted with dozens of community antenna systems, the largest of which has some 7,000 subscribers. (These privately owned systems bring TV programs into areas that could not otherwise receive them, and pipe the programs into the homes of subscribers.)

From Sunbury and Williamsport, television stations could serve an estimated combined population of 650,000. But the catch is that the cities themselves aren't big enough to interest networks in taking them on as affiliates.

• **Plan**—Groups in both towns now hold construction permits from FCC to build UHF stations. Scranton Broadcasters has a contractual arrangement to supply the stations with all the network programming it gets from CBS. Negotiations are under way for Scranton Broadcasters to hold a financial interest in them.

The Scranton mother station will hold the CBS franchise; the two associated stations will merely rebroadcast the network shows. Scranton Broadcasters does not plan to pay the smaller stations for the time, nor will they pay for the programs. The idea is that the latter will be able to build around these strong network shows their own local programming.

• Whether Scranton Broadcasters will boost its own rates to advertisers over WGBI on the strength of the added market over the hills is undecided.

• **Amicable**—The Scranton group says that despite the element of competition involved, its relationship with many community antenna systems in the area is an amicable one.

The new local stations will have to depend for a while at least on these systems to get into existing television homes. These have VHF sets and would have to be converted to UHF to pick up the new stations.

Furthermore, Scranton Broadcasters feels that the community systems will gain from having access to stations providing local coverage. **END**



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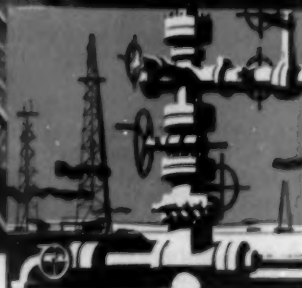
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In Marketing

• • •

Gamble-Skogmo Returns to West Through Furniture Chain Deal

Gamble-Skogmo, Inc., big wholesale and retail chain that merchandises everything from furniture to soft-goods, last week added a sizable string to its bow. It bought enough stock in a California concern—Barker Bros. Corp., the nation's biggest furniture retail chain—to give G-S close to a controlling interest. It's a matter of days before it has 50% or more.

This is the latest in a long series of deals in which Gamble has been involved. Last January it sold out its western stores (BW—Jan. 29 '55, p90); later, it shucked off its three battery manufacturing plants and its home laundry plant.

By moving in on Barker, Gamble is once more in the lush Far West retail picture. The company explains it bought the expanding furniture chain as an investment.

For its part, Barker expects to run its business—it sells practically everything in the home furnishings line—as before, with no management changes.

Barker's president, Neil Petree, looks to the new association to help him in his battle with the discount house. Barker has been selling name brands with small profit to keep its end up. About a year ago, it threw out General Electric appliances, in protest against the GE items that wound up in the hands of price cutters. It has since reinstated them, but Petree feels that a private label is the best answer. Gamble-Skogmo's appliance manufacturing plants will, he hopes, give him the source.

Gamble's sales last year were off from 1953; Barker's sales have been slipping for several years. Both concerns report an upturn in 1955. For the first half, Barker's sales of \$14-million were 10% ahead of a year ago; Gamble's sales of \$68.9-million were 9% ahead (after adjusting for sale of its western properties).

After a three-year halt, Barker is set to expand again. It opened a big new store in Burbank, will open another in Reseda shortly, has added two decorating studios, plans another new store in San Bernardino next year.

• • •

FTC Hits Druggist Group With Brokerage Fee Charge

Brokerage fees given to buyers by sellers are under attack again—this time in the wholesale drug field—by the Federal Trade Commission.

Under the Robinson-Patman anti-price-discrimination act, brokerage or finders' fees may be paid only for services actually rendered, and not to buyers or their agents, even when they do their own brokerage services. The provision was aimed at the large food chains, to prevent their setting up an unfair competitive advantage over other buyers who could not match mass buying economies.

Last week, FTC hit the Druggists' Supply Corp. of New York City—an organization that FTC charged is a buying group controlled by over 100 wholesale druggists throughout the country. FTC said Druggists' Supply has paid back over \$700,000 in brokerage commissions over the past five years to its wholesaler members. These commissions are collected from seller-suppliers for the service of placing their orders.

Criticism of this practice was recently rehearsed before Sen. Harley Kilgore's (D-W. Va.) antitrust and monopoly subcommittee (BW—Sep. 10 '55, p52).

• • •

Single Stories, Rumpus Rooms Gain Favor in New Homes

With home building still coming on apace, anyone merchandising to the homeowner is vitally concerned with the kind of homes, and who are building them.

Better Homes & Gardens magazine throws some light on these questions in a new study, *The New House Next Door*, 1955. The study, in which F. W. Dodge Corp. cooperated, was based on questionnaires to nearly 1,200 recent builder-owners.

It shows the do-it-yourself trend is strong. Some 23% did all or most of the work themselves; over half did either carpentry or some interior finishing.

The one-story home has gained fast since 1949; 80% are of this type in 1955, against 56% in 1949.

The rising birth rate shows up in a greater demand for three bedrooms; some 53% have three this year, compared with only 35% in 1949. There are more combination living-dining rooms (39% against 31% in the earlier year). A rumpus room was specified by 65%, with the basement the favored spot. A third of the new homes have two or more baths; half have laundry utility rooms in basements, and 62% boast an entrance hall.

The rage for outdoor living shows up in the number (45%) of houses with paved terraces or patios; 21% provided picnic tables. By the same token, 86% had either picture windows or floor-to-ceiling glass areas.

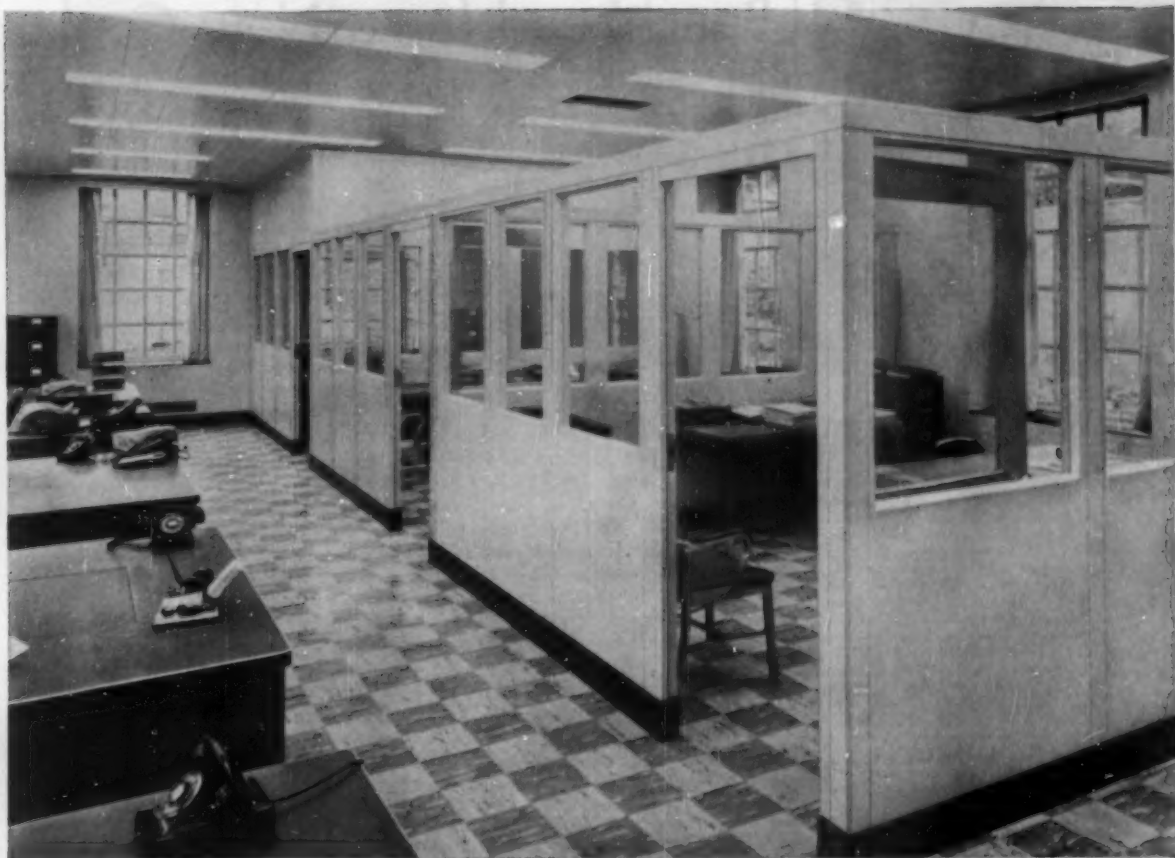
People of all ages build houses, but slightly more (35%) fall in the 35 to 44 year group than in any other. Over two-thirds of them have children under 18.

• • •

Marketing Briefs

Limited ownership of radio and TV stations, as set down by Federal Communications Commission, will be fought out before the U. S. Supreme Court. FCC set a limit of 14 radio stations (seven standard, seven FM), and five TV stations that could be owned by one interest, and refused to O. K. Storer Broadcasting Co.'s purchase of a sixth TV station in Miami. Storer appealed to high court, which this week agreed to hear the case.

Fair trade, however, still can't get a hearing by the high court. The Supreme Court again refused to review two pro-fair trade decisions this week. One O.K.'d price maintenance for prescription drugs, the other upheld Illinois fair trade law as constitutional.



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Cram & Ferguson, Architects

Gilbane Building Co., Inc., Builders

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Beachhead for a New Cooler

The individual built-in air conditioner pushes into an industry that's already heated about which style points to its big future. The answer seems to be: all of them.

For a long time a hot argument has been raging in the air conditioning field. Does the big future of this relatively new industry lie in large central installations that cool a whole building? Or does it lie in the room-by-room cooling unit?

Manufacturers of the larger installations, companies such as Carrier Corp. and Worthington Corp., are putting their big money on central installations—even when they may market the room unit, too. Some concerns, in fact—Worthington Corp. is one example—have written off the window unit entirely as an outmoded form. Now a new development is out to challenge the status of the central installation as the system of the future. This is the individual unit that's built into an outside wall and that, like the window unit, cools a room at a time.

Here is what's happening in the field:

- Lewyt Air Conditioner Corp. reports contracts for 25,000 of these built-in units in its first four months of marketing them. It expects to sell 100,000 in its first year.

- Amic Mfg. Corp. has equipped what it believes to be the first major apartment house (an 18-story job on New York City's Park Avenue) to use this specially designed unit.

- Airtemp Div. of Chrysler Corp. is set to go with its "All-in-Wall" unit, made, like Amic's, to be a part of the building structure. Airtemp will start promoting this unit to the trade in the next few months.

- Adaptation, With Extras—Sticking a room unit into the wall is not a brand-new idea. Most of the larger manufacturers can cite builder customers who have used the conventional room unit in this way. But this latest development goes beyond the earlier practice, as Amic, Lewyt, and Airtemp are quick to point out. The steel casing that holds the working end of the cooler is an integral part of the building. To install the unit, the works are simply inserted into the casing when the building is up.

This kind of setup has some obvious advantages over the window type air conditioner. A big advantage is that it does away with an obstacle in the window that blocks the view, contributes nothing aesthetically to the appearance of the room. Because it goes through the wall, only an inch of so of the unit sticks out on either side.

In the matter of maintenance, too,

the built-in has this edge over the window cooler. It is built of heavier steel, can withstand winter rigors without protective covering. Furthermore, the built-ins have been approved for Federal Housing Administration loans; their cost can be written into the mortgage.

- Costs—Lewyt, for one, believes that the built-ins cost less in new construction than the conventional window unit. The Lewyt price averages around \$200 apiece—depending on the number purchased. Amic's price is around \$250. For the builder, it figures, prices are comparable with those of window units. Airtemp estimates its built-ins run maybe 20% higher. One reason is that they require sturdy materials, careful engineering to eliminate noise.

As against central installations, proponents of the built-ins find good reasons for favoring their baby. While it is true that you can get complete flexibility of control over the central installations, these controls force up the cost of the central equipment. Airtemp figures that the initial cost of equipping a new building with built-ins may run about 60% of the cost of central systems.

For the landlord or building owner, there's an operating saving in that individual units can be turned off. In central systems, the unit must be working even if the individual apartment occupant doesn't want cooling.

Lewyt says that in some buildings, the casings are installed at the time of building but whether the individual tenant actually buys air conditioning is optional. If he does, the landlord can simply add to his rent.

From the home builder's point of view, the built-in offers a chance to advertise a "feature" that will lure buyers, but which will not cost the builder much cash.

- Still in Infancy—The air conditioning industry is sharply divided as to how important the development of the built-in air conditioner may prove. It is still too young for there to be any statistics on it. But it is generally agreed that just now built-ins represent only a very small part of the total air-conditioning picture.

Many experts—including such companies as Carrier Corp. and York Corp.—believe that the built-in is unlikely to make a real dent in the central installation market, at least in the field of housing. An official of General Electric Co.'s Weathertron (heat pump)



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division points out that in housing you very quickly get to the point where the central cooling is cheaper than a batch of built-ins. It doesn't take many individual units at \$200 to \$300 apiece, to add up to more than the cost of building a central cooler into a central heating system in new construction. He figures that in many cases, the price of three built-ins will be more than a central cooling system in new constructions; and that if a house requires four individual units, the price will certainly be higher than for a central cooler.

Furthermore, this official points out, architects are always trying their hardest to hide appliances. He grants that the wall air conditioner is less obtrusive than the window unit, but says it still means a hole in the outside wall, and used space in the inside.

For merchandisers, the built-ins pose some special problems—some of them similar to those that arose with the built-in kitchen (BW-Jan.15'55, p56). The man who handles the window unit is an appliance dealer more often than not. The built-in dealer is likely to be an "installing dealer"—and merchandising is hardly his forte. Lewyt recognizes this problem. He has built special displays, and revised also advertising to help show the lumberyard and the heating and cooling contractor how to sell.

• **Mulling Over It**—The built-in also loses out in one important market where the window unit really catches on: the impulse buyer who rushes to the stores during a heat wave. It takes a little cogitation to plan a built-in.

In reply, the built-in manufacturer points to an offsetting advantage on his side. What he loses in the impulse market he gains by selling to or through builders. Nowadays, with building practically a year-round business, this means a longer selling season.

Actually, the disagreement is probably more apparent than real. It seems likely that all hands are right—that as of today, there's a good market for all types. Window unit manufacturers, such as Fedders-Quigan, feel that the market for their product is practically inexhaustible because the older house presents such a fertile field. The appliance division of General Electric hints at developments to come that will greatly increase the usefulness of smaller air-conditioning systems.

The skeptics grant that especially in multi-dwelling buildings—whether home or office—the built-in stands a good chance of getting a strong foothold. Proponents of central systems believe that as of now their strongest home market is the luxury home. But for the long haul, they argue, when whole-house cooling is as accepted as whole-house heating is today, some form of central plant will take over. **END**

Words or figures

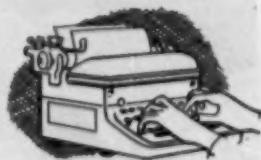
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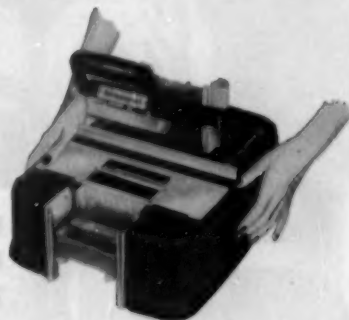
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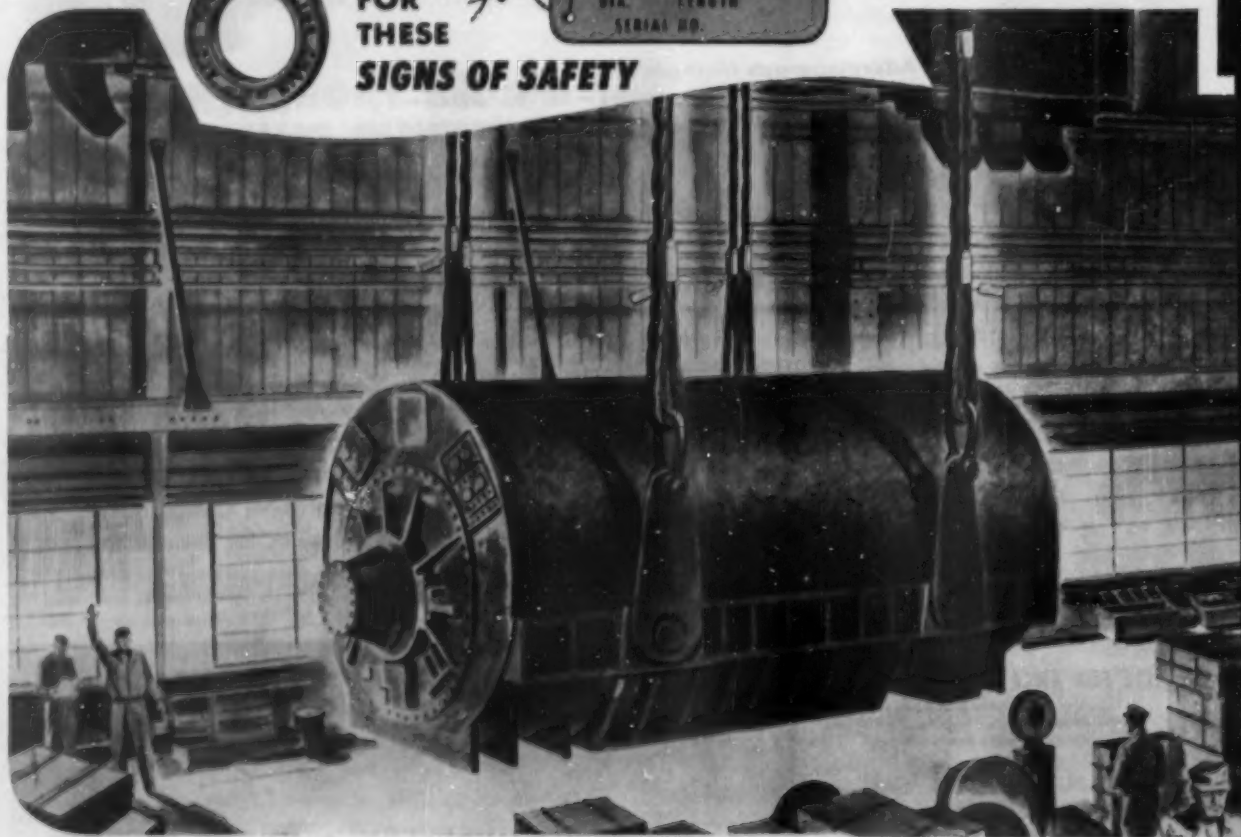
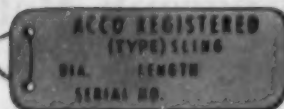
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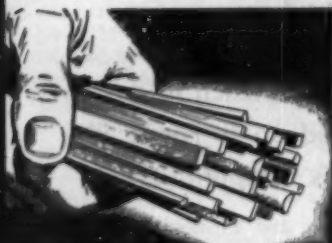
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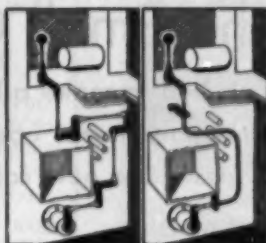
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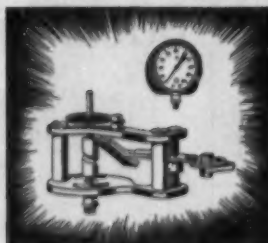
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LATEST OF A LINE of king-sized taxicabs is this new model from Checker Cab Mfg. Corp. and even this one is more compact than its predecessors. It has the job of...

Bucking the Small Cabs

Checker Cab had to make a hasty switch in design when its New York market was opened up to Fords, Plymouths, and Chevvies. The new cab is competitive.

Checker Cab Mfg. Corp. is in Michigan (Kalamazoo) and it makes automobiles, but there its resemblance to the Detroit giants fades away. For Checker is one surviving specialist in a dwindling market: the big taxicab.

Checker is about ready to roll its first really new model since 1950 off the production lines at Kalamazoo—seven months behind schedule. It has hope of selling 5,000 cabs this year. That would be a good volume nowadays, though the company sold 9,800 back in 1929.

The long changeover time for this model (picture) and the cost of retooling leave Checker no hope of staying out of the red this year. According to one estimate, retooling cost about \$4-million. That's a lot for a company that netted only \$721,060.54 last year.

I. The New Cab

The belated new cab is Checker's answer to increasing competition from Ford, Chevrolet, and Plymouth. Checker builds a big cab, designed for city driving and for low maintenance cost; some cities have long insisted on such cabs. Ralph E. Oakland, Checker's first vice-president, says just under 20% of the 75,000 taxicabs in the U.S. today are Checker-built. (The American Taxicab Assn. estimates the total at

125,000 cabs, and Plymouth Div. of Chrysler Corp. says it sells 70% of an annual 45,000 new cabs in a total of 140,000 cabs.)

In recent years, though, city officials have been breaking the hold of the big-cab companies, by allowing conventional small cars, with modifications, to be licensed as cabs. One of the last holdouts was New York City, which last year opened the doors to standard light cars.

Checker had been selling half its production to New York operators. When it shut down for retooling last December, it didn't realize how well the small cabs were catching on following the city council's midsummer action. It still planned to tool up for more big cabs.

About that time, though, Checker saw the handwriting and decided to retool more extensively for a wholly redesigned smaller cab. That's when the extra time and tooling cost came in.

• **Modernizing Plant**—The company took advantage of the hiatus to modernize the plant, which was built in 1930. Assembly stations were relocated, and the conveyor system improved. Checker buys its engines from Continental Motors Corp. but builds most of the rest of the cabs.

• **Modernizing Product**—Checker is

following the trend toward smaller cabs but stressing its own low maintenance cost and its tailoring for city driving, in contrast to long-haul, open-country touring.

The new cab is 9 in. shorter than the model originally planned last fall. Compared with the Big Three, it has a longer wheelbase, shorter over-all dimensions, about 400 lb. more weight. It has a slightly smaller turning circle, 37 ft. compared with about 40 ft.

Molded plastic replaces cloth in wall panels and ceilings. The two jump seats are turned at a 45-degree angle so their occupants' knees get clearance toward the doors instead of being jammed into the back of the front seat.

Doors have been widened, though they still avoid any cutout for the fenders; one of passengers' chief complaints about standard cars is difficulty of entrance and exit.

The new model's wheelbase is 120 in., which is 4 in. shorter than the previous model but 5 in. longer than, say, the Plymouth. Its saving in bumper-to-bumper length comes in reducing the overhang fore and aft. The grille, for example, is pulled closer to the radiator instead of farther from it, as in Detroit designs. Weighing in at 3,700 lb., the new model is 140 lb. lighter than Checker's previous cab.

The new car uses individual suspension of front wheels, in line with Detroit practice, though Checker grumbles about increased maintenance cost.

• **Price Tags**—To meet the competition of the big-volume passenger cars, Checker is cutting price. The expired model sold for \$2,424, F. O. B. Kalamazoo; the new one lists at \$1,805 for a standard-transmission model (about \$2,150, equipped) and about \$2,400 for an automatic-transmission job with all power features. Conventional passenger cars equipped with a "taxi package" (meter, roof light, extra heavy brakes and clutch, etc.) are advertised for \$1,750 but, according to Checker, run over \$2,000 delivered.

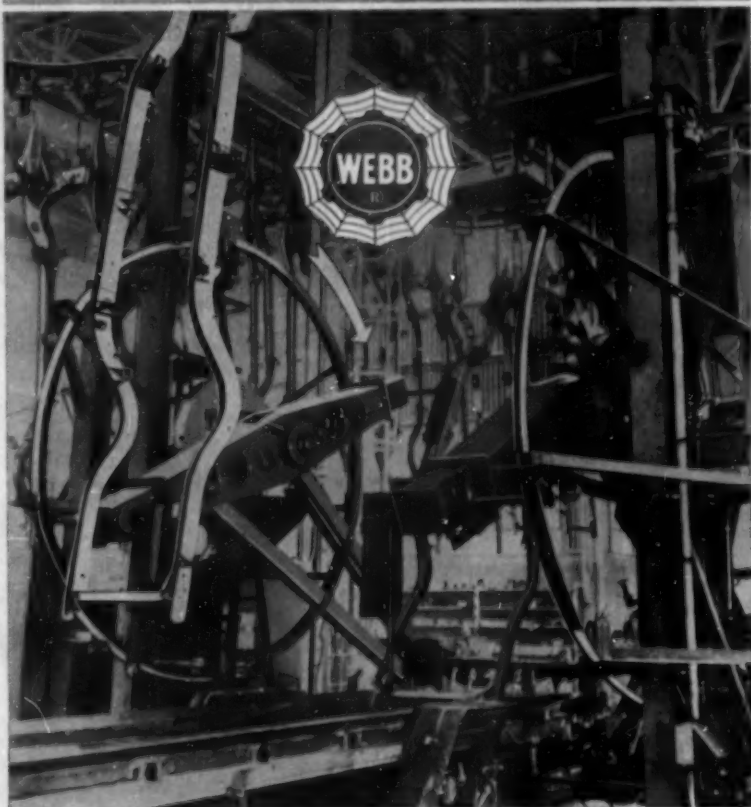
Checker calls its product an eight-passenger cab (driver and two other persons in the front seat, three in the rear seat, two on the jump seats) and conventional small cars can't match that capacity. However, many cities ban customers from the front seat.

• **Upkeep Cost**—More than price, Checker stresses durability in making its sales pitch. It says a Checker cab will run 150,000 mi. before needing a major overhaul, with about half maintenance cost of a conventional pleasure car converted to taxi use.

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that the Checker cab operator can go 30 months before a major overhaul, a pleasure-car cabbie only 15 months before he has to palm off his hack on a used car dealer.

The difference, says Checker, is in the stronger frame, sturdier roof members, undercoating of the top and bottom of the cab floor, demountable fenders as well as heavy-duty engine, clutch, and gearing. Cabs are especially vulnerable to damage to fenders and front grille, so these are made to be replaced as readily and inexpensively as possible.

In this respect, the new Checker model outdoes the old one. Fenders on the preceding model are what might be called semi-detachable; the cab must sit in the shop for quite a while when a fender has to be replaced. On the new cab, it takes minutes to remove a dozen nuts and slip a new fender into place.

II. Checkered Career

The two new models—standard and driv-er-matic—will be rolling off the line in a couple of weeks. The payroll, pared to 400 workers during the retooling, will be up to a normal 600 to 700. However, not even the most optimistic Checker man expects the company to recover its pre-Depression stature. Like the cabs, the company has been shrinking.

Checker Cab Mfg. Corp. was founded in 1922 to build special-purpose cabs for a co-op group of drivers-owners in Chicago (Checker Taxi Co., now owned outright by Morris Markin, president of Checker Cab Mfg.). After a year on a Chicago site, the company took over the Kalamazoo plants of two defunct auto companies: Dort and Handley-Knight.

• **Self-Selling**—Checker the manufacturer has always gone hand-in-glove with Checker the cab operator. Checker Mfg. owns 62% of the common stock of Parmelee Transportation Corp. of Chicago, which controls operating subsidiaries in four cities: Yellow Taxi Co. in Minneapolis, Yellow Cab Co. in Pittsburgh, Chicago Yellow Cab Co., and National Transportation Co., Inc., in New York. Last year Parmelee made three times as much profit as the parent company.

At one time, Checker also owned operating companies in Cincinnati, Cleveland, Rochester, and Atlantic City. Even now, the Checker name on cab fleets is far wider spread than actual ownership by the company—Checker has never tried to protect its trademark.

East Coast sales are handled through the Checker Cab Sales Corp. in New York; West Coast sales by franchised auto dealers. The central

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• **Darkest Hour**—Although the 1956 model is only the second real change-over since the war, it is Checker's third big retooling. Therein lies a story of the company's darkest hour.

From 1941 to 1948, Checker was engaged wholly in defense work. It hadn't intended to lag so much in reconverting to civilian products, but it made a patriotic sacrifice late in the war.

The company got carried away by a government scrap drive and sold its tooling as scrap. Before the glow of patriotism died away, the atom bombs fell and Japan surrendered. It was 1948 before Checker could retool to turn out cabs again.

III. The Competition

When the new Checker cabs reach the city streets, they'll find no other seven-passenger taxis that are fresh from the factory. James F. Waters, Inc., of New York has ceased manufacture of the big De Soto cab that was Checker's long-time chief competitor. Waters had the De Soto chassis built to its specifications and completed about 2,500 cabs a year for sale mostly in New York but also in California, Chicago, and Buffalo.

Waters stopped production last year after New York changed its regulations. "We find most operators prefer the smaller cab," says a spokesman. The last De Soto sold for about \$2,800.

Waters, also a dealer in new and used De Soto and Plymouth passenger cars in the Borough of Queens, is now merchandising four-passenger Plymouth cabs modified by the so-called taxi package. The agency will soon have a special-purpose Plymouth cab to sell, though.

• **Packages**—Taxi-package cabs are offered by Ford, Chevrolet, Plymouth, De Soto, and Dodge. American Motors Corp. is also coming out with a package for its Hudson Rambler. Other cars, notably Packard, are often modified for taxi use, too.

Plymouth's taxi package is typical. Equipment, installed either at the factory or later by the dealer who sells the car, includes heavy-duty frame, springs, shock absorbers, seat springs, battery, clutch, etc., as well as taxi meter and roof light.

• **Brand-New Cab**—Effective with 1956 models, Plymouth will offer a car built especially for taxi use. It will be sold, as formerly, through dealers and will be complete with wiring for meter and roof light, though these items will be installed by the buyer. As far as Plymouth knows, no other standard car manufacturer has ever put out a special taxi model. **END**



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Last of the Rubber Plants

Goes to the Bidders

The government's last big synthetic rubber plant is up for sale, and this week six companies put in their bids. The plant, at Institute, W. Va., missed out in the original disposal program by which all the government's other operating rubber plants were sold to private industry. As it stands now, the plant's operation is somewhat obsolete and is geared to a high-cost production technique.

Companies that put in bids, at undisclosed figures, are: Goodrich-Gulf Chemicals Corp., Cleveland; Good-year Synthetic Rubber Corp., Akron; Imperial Commodities Corp., New York City, a Dutch-controlled rubber trading firm; Union Carbide & Carbon Corp., New York; United Rubber & Chemical Co., a wholly owned subsidiary of United Carbon Co., Charleston, W. Va.; and Edwin W. Pauley, the Los Angeles oilman.

Within a few days the Rubber Disposal Commission will start negotiations with the bidders—which it must conclude by Dec. 21. Then the commission will report to Congress on the deal, and either house will be able to veto the proposed sale if it chooses. The sale is reckoned final if no veto comes within 30 days.

The government put up the new plant to bidders after Imperial Commodities Corp. declared its interest in buying the plant to produce rubber. Previously, the only interest in the plant came from buyers who planned to dismantle it.

• • •

Airline Subsidies Decline, Mostly on Over-Ocean Runs

Airline subsidies keep plummeting as air traffic keeps climbing. Chmn. Ross Rizley of the Civil Aeronautics Board says subsidies for 1956 and 1957 will be about \$18.5-million per year—that is 13% less than this year and 33% less than in 1954.

Only two of the 13 domestic trunklines (Colonial and Northeast) are on subsidy. The big drop in subsidy outlays stems from declines in the amounts paid to over-ocean carriers. Feeder lines are getting about the same as in recent years.

• • •

Soaring Cotton Prospects Add to Farm Law Pressure

A super cotton crop, forecast this week by the Agriculture Dept., puts new pressure behind farm legislation to be sought from Congress next year.

The cotton outlook is now for a crop 2% larger than a year ago, though acreage is 14% less. The jump is due

to good weather, better growing techniques, and the use of more fertilizer on the best cotton land.

This year's yield, now estimated at 405 lb. per acre, is the highest in history.

Under present law, with bigger carryovers and some scheduled jiggling of the parity formula, cotton supports may drop from the present 90% to 80% or 85% of parity. This means a slide-off of as much as 3¢ or 4¢ a lb. in the present guaranteed price of 30¢ a lb.

All this will stir up the Congressional cotton bloc, mostly in the direction of shoring up the support price.

Last year, moves were made to let prices drop a notch, to help cotton compete for markets abroad.

The politics of cotton is pretty potent. Such key leaders as Senate Majority Leader Lyndon Johnson and House Speaker Sam Rayburn are among the legislators from cotton-growing districts.

• • •

Nixon Gets Spotlight At Meeting on Bias

Vice-President Nixon, head of the President's Committee on Government Contracts, is stepping briefly into the President's shoes to push the attack on racial bias in industry.

Some 66 businessmen and labor leaders will get together for a day-long meeting and a dinner on Oct. 25, at which they'll get a full review of the government's position, and learn what kind of cooperation the government is seeking from them in attacking bias.

For this, Nixon will be their host. Invitations to the meeting and dinner first went out from Washington last month—along with a pointed note that Pres. Eisenhower would be host at the dinner. After the President's heart attack, the invitations were made over again, this time with a note stating that Nixon would be the dinner host.

• • •

Louisiana's Offshore Limit Left Hanging by Supreme Court

The legal hassle over control of offshore oil was given another spin this week by the Supreme Court.

The Administration and the State of Louisiana have been feuding: The Justice Dept. argues that Louisiana territory extends only three miles into the Gulf of Mexico; the state says that it, like Texas, owns out for three leagues, or 10½ miles.

The Supreme Court this week refused the request of the federal government to rule on this point—which leaves the issue up in the air, and may cloud the development of oil in the disputed areas for years to come.

Apparently, the case was not properly brought before the court. Experts on both sides are still trying to figure what is the next step—whether to start a case in the lower federal courts, say, or to try another tack with the Supreme Court.

Other Supreme Court actions this week were:

- It agreed to hear the antitrust case designed to remove from the du Pont family its large holdings of General Motors and U. S. Rubber stock; the government

lost the case in the lower court.

• It hears arguments this week in another du Pont case that could make big antitrust news. This one involves the charge that du Pont monopolizes the cellophane business. The lower court said du Pont's 75% of the cellophane isn't as significant as it sounds, since the material has to compete with several other flexible transparent wrapping materials.

• • •

Columbia River Waters

Dampen U.S.-Canada Talks

The split between the U.S. and Canada over Columbia River water is becoming sharper than ever before.

At issue are the Canadian plans for possible diversion on a large scale of water that might never cross the boundary. It is held that this could affect the flow through U.S. power plants. As much as 15-million acre feet might be diverted annually.

The U.S. members of the International Joint Commission take exception to Canadian assurances that this could be done without injury to U.S. interests in Columbia basin waters.

• • •

Air Force Blooper

Backfires on Censors

Military censors lost a few points this week. Through a slip of their own they provided ammunition for those who oppose the Pentagon's attempts to clamp down on publication of non-classified information.

The Air Force, in a routine move, turned out a complete and official pattern of the distribution of about 150 U.S. and allied bases. The 69-page document had been designed to aid military finance officers in paying off travel allowances between bases. It told where the bases are, and how far from nearby cities.

Newsmen pointed out that here was exactly the kind of thing the Pentagon—through Karl Honaman, former Bell Labs official now working for the Defense Secretary—has been trying to keep the press from publishing.



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White House Team Carries On

● Eisenhower's new conception of how to organize government has passed a tough test.

● The President's heart attack found government already geared to minimize demands on the top man.

● Here's how the system works, running itself—almost.

The Eisenhower theory that government by team is the best government has survived its harshest test. On all the evidence so far, it goes down as a smashing success.

The test was whether the government could move along smoothly and maintain its pace without its dominant figure—the President.

This week, the third since he was stricken with coronary thrombosis at Denver, Pres. Eisenhower began seeing team members again, albeit briefly. Thus the worst part of the severe test was passed, and even skeptics were impressed with the team performance.

• **First Callers**—First to fly from Washington for a bedside chat was Vice-Pres. Richard M. Nixon, being boomed as the logical choice for the Republican Presidential nomination next year if Eisenhower doesn't run again.

Then, on Tuesday, Eisenhower saw John Foster Dulles for 25 minutes. It was Eisenhower's longest work session since he was stricken. Eisenhower and Dulles collaborated on a note to the Russians about disarmament, and they discussed policy problems likely to confront Dulles when he goes to Geneva later this month for the Big Four conference of foreign ministers.

The week brought good news, but a bigger challenge, to the other members of the team holding forth in Washington: Eisenhower's doctors said his progress, though steady, was slow. By current indications, they foresaw him leaving Fitzsimons Army Hospital by Nov. 5 or Nov. 12 for a flight east, not to Washington and the White House but to Gettysburg, Pa., and his farm retreat.

Six weeks later, about Jan. 1, they calculated, he might be able to return to the executive mansion.

• **Schedule Revised**—Earlier, the tentative schedule was to have the President back on the scene a little earlier—say, around Dec. 1—but to the last man the team is confident that affairs of government will proceed smoothly anyway—no matter whether Eisenhower is in Denver, Gettysburg, or Washington.

On the basis of their performance since he was stricken, they say they have

no reason to feel otherwise. One thing helps: Eisenhower will be available in the interim, when needed to discuss big policy problems, as with Dulles. Problems of small proportions will be kept from him, to be dealt with by the White House staff, the Cabinet, and the National Security Council.

• **Eyes and Ears**—The Denver-Washington operation is a busy one, especially for Sherman Adams. He flew east late last week to sit in at Cabinet and National Security Council meetings, then flew back to Denver during the weekend with Nixon; Dr. Paul Dudley White, Boston heart specialist; and Maj. John Eisenhower, the President's son.

As the President's eyes and ears, a sort of pivot man in the Washington-Denver operation, Adams plans to commute regularly for the Cabinet and council meetings.

• **Nixon's Role**—Out of Nixon's visit came agreement that the Vice-President will cancel a goodwill mission, scheduled for late November, to the Near East.

Nixon, instead, will take over Presidential ceremonial duties. This will help enhance Nixon's standing as the logical Republican nominee next year if Eisenhower does not run again.

The Vice-President begins his ceremonial duty on Oct. 17, addressing the International Air Transport Assn. Convention in New York as a substitute for the stricken President. Other such assignments will follow.

By November, Nixon is expected to spend considerable time in the White House performing Presidential pleasantries—such chores as posing for pictures with distinguished guests, delegations from organizations with a worthy cause, etc. These duties often involve making brief speeches, also, in the executive offices or the White House rose garden.

But there is fresh evidence that Nixon is not taking over as "Acting President." After his Denver conference with Eisenhower, Dulles scheduled a meeting with key Congressional leaders from both parties, to brief them on problems and prospects of the impending Geneva meeting. This is the type of bipartisan

meeting that would, ordinarily, be done by the President at the White House.

When Eisenhower fell ill, Administration officials had two great, immediate fears. The first was, of course, that the President might not live. The second was about chaotic complications that might arise if he became disabled to the point where he could not sign official papers.

Now those fears are gone.

I. What's Different Now?

"All that has really changed since Sept. 24 (when Eisenhower was stricken) is that the Vice-President presides over the Cabinet and the National Security Council meetings, and that Eisenhower is once more signing papers and beginning to see people."

Thus spoke an important member of the Eisenhower team this week in discussing government's day-to-day operations. The stress was heavy on "signing papers."

A key man in the Cabinet put the same thought into different words: "After all, we are a team and we will just keep on that way . . . we always tried to reduce the issues going to Eisenhower to a minimum. Now that becomes more important than ever."

The importance of reducing the issues requiring Presidential attention is a theme woven through every serious conversation with members of the Administration.

What is new about that is not the basic principle—Eisenhower's Administration has been remarkably free of personality clashes and bickering—but the subtle concentration of emphasis put upon it.

• **Speculation**—There is no evidence that any decisions taken since Sept. 24 by the Eisenhower Administration were different from what they might have been if Eisenhower had been in Washington all the time, in good health and accessible.

Some second-guessers are figuring, however, that one big Administration decision could have gone differently with the President available. That concerns the Defense Dept. decision to hold military spending this fiscal year at \$34.5-billion, instead of a cut to near \$33-billion that the Treasury Dept. would have liked in the interest of a balanced budget by next June 30. The speculation is based on a feeling that Treasury Secy. George M. Humphrey would have asked Eisenhower for help in cutting the spending.

But a Cabinet officer intimate with all the details says this is not so. He

supplements that denial with an observation that gives remarkable insight into the extent that executive powers have been decentralized under this Administration.

"The President would not be called on to make a decision in this area except at the very highest policy level," he says. "That is, not unless the time had come to recast our basic military philosophy in the light of world events. That time is not at hand."

• **In Stride**—Has the President's illness made the most powerful members of his team more powerful? The evidence suggests the answer is probably yes, but here again the change is subtle, involving fractions.

Secy. George M. Humphrey of Treasury, Secy. of State John Foster Dulles, and Secy. of Defense Charles E. Wilson, along with Presidential Chief of Staff Sherman Adams are the outstanding figures.

One official puts it like this:

"There is no government by junta; there has been no grab for power. What you've got to remember is why any one man stood out before. First, he had the complete confidence of the President. If the team depends on any individuals more now than before, it's just a shade. Personally, I'm not even sure it has happened."

II. Origins of Teamwork

Eisenhower's illness has served to accentuate the important roles he has assigned to the Cabinet and the National Security Council.

In the strict, constitutional sense, neither is a policy-making body. But both have become organs for setting policy, as a practical matter. This has happened through Presidential consent—or, more properly, at Presidential insistence.

A key man in the White House staff says, "Eisenhower's most spectacular contribution to government has been his genius for organization. We never thought it would show, but now it is showing. What ordinarily would have been of interest only to political scientists all of a sudden has become of importance to every person in the country."

At the outset, Eisenhower insisted that the Cabinet have a formal agenda for every meeting and that members come prepared to talk about everybody's problems, not just their own. To make certain this would happen, he installed Maxwell M. Rabb, a peppery Bostonian, in a new job—secretary to the Cabinet.

Rabb was given the job on a temporary basis in October, 1953, supplied a small staff, and assigned office space in the second floor of the White House office wing. By October,

1954, his job had become permanent.

The same thing was occurring at the same time in the more-secret Security Council, where Rabb's counterpart at the outset was Robert Cutler, also a Bostonian. Cutler resigned several months back, and Houston attorney Dillon Anderson took his place.

• **No Sinecure**—Creation of these jobs could have been a mere exercise in organizational paperwork, but they turned out to be real and substantial.

Rabb and Anderson work long busy hours preparing. They are in frequent touch with Cabinet officers or high-level departmental executives.

From one department official comes this explanation of how things go: "If a Cabinet member has something he wants to get on the agenda, he asks Rabb. Maybe it's O.K. for that week. Or maybe Rabb reports back, 'It involves another department, and that particular Cabinet member will be out of town for a while. Let's schedule it later.'"

What is involved here is recognition that government is too complex to compartmentalize, that most problems are interdepartmental, and that every department head ought to have a voice in settling them.

Thus it is, for example, that an agenda that shows that Wilson of Defense wants to discuss speeded-up plane deliveries, or Agriculture Secy. Ezra T. Benson wants to try out a new farm price support idea, will put Treasury staffers to burning the midnight oil. Money is involved, and Secy. Humphrey goes prepared.

This same round-robin of interest and staff digging goes on steadily throughout the executive branch. When there is conflict, Rabb and his staff prepare "position papers" in advance, based on reports from the various departments. These set out the pros and cons.

An important member of the team, referring to the end result, cites the 1954 farm program. "We whacked it around in the Cabinet, discussed it and argued it from every angle we could see," he says. "When Benson went out with an agreement that a shift from rigid to flexible price supports was the policy, he knew he didn't have to worry about being attacked from the rear. He knew there'd be no sniping from within the Administration, for every Cabinet member had a hand in making that policy."

"That is the machinery for teamwork. There is joint thinking but that doesn't mean rubber stamping. If Labor Secy. James P. Mitchell or anyone else thinks he's being wronged, he stands up and argues. But the arguing ends in the room, and when the Cabinet goes out, it goes in one direction. It doesn't ride off in different directions."

"And that's why there has not been

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a big gap in government since Sept. 24."

Records of the meetings are kept, but there's no formal compilation of votes on any given issue. The explanation is: Eisenhower wants his advisers to speak what they think, no "posture for history."

• **Second Team**—The Eisenhower demand for teamwork does not end with coverage of the "first team." There is a second team, roughly described as the "sub-cabinet," which meets with Rabb after every Cabinet meeting. Under Secretaries and other high-level administrators, they are given a fill-in on the Cabinet conversations and whatever decisions may have been taken. It is their job then to go out and get things done.

Rabb and Anderson regularly briefed Eisenhower in advance on Cabinet and council agendas. Now, Nixon gets those briefings, because he is the presiding officer of both groups.

But Nixon goes into the sessions, otherwise, as an equal among equals. He does not, for instance, occupy the President's chair at the oval-shaped table in the Cabinet room. And he enters the room at the same time as other Cabinet members, not after they are standing around the table as was Eisenhower's custom.

III. The Team's Future

Busy, more trying days lie ahead for the Eisenhower team. Within the next 10 weeks, big decisions have to be taken, and the Presidential voice must be heard on them.

The glow of optimism in Washington this week covered not only present operations, but the future as well. It is keyed to the medical reports from Denver, where Eisenhower's doctors set out a tentative schedule for progressively more work until January, by which time the President should be back in the White House.

Between now and New Year's, the Administration needs to formulate its tax policy for the new session of Congress that opens on Jan. 3. "No big problem there," says one of the Cabinet. "There will be plenty of time after the President gets back on the job, by present schedules."

This official says the same applies to whatever disputes might arise as the new budget, due to go to Congress in January, is pulled together.

• **Doctor's Report**—Dr. Paul Dudley White, the Boston heart specialist serving as a consultant in the Eisenhower illness, cleared up a question about what the President could do without serious personal consequences in an immediate emergency. The President can make decisions of greatest magnitude—such as, for example, whether troops should be moved from one part of the world to another in a crisis.

Time and the healing process in the Eisenhower heart will allow the Chief Executive to take care of the lesser problems as they are ready for him. That is the basis on which Washington proceeds.

One point stands out: Having the President available for regular consultation, if not regular hard work, will be an absolute necessity once Congress settles down to hard work. But here again, time is on the side of Eisenhower and the team.

It probably will be January of February before the Congressional wheels really start turning.

IV. Denver Tielines

An unpretentious office occupied by Sherman Adams is the focal point of executive power at this juncture.

It is on the second floor of a yellow stucco building, with red tile shingles, at Lowry Air Force Base, a conglomerate of similar-looking buildings rising from the prairie five miles east and a trifle south of Denver.

It is from here that Adams, a reticent and seemingly colorless man, performs his considerable duties as the Assistant to the President, a title that is frequently shortened to "Assistant President."

• **Full Day**—Adams' day begins about dawn. He spends his time mostly at handling the ceaseless exchange of papers between Denver and Washington, keeping in touch with the White House staff in Washington by telephone and teletype, talking things over with Cabinet members and other ranking government officials by telephone, and preparing himself for daily brief visits to Eisenhower in the President's suite in the tower of Fitzsimons Army Hospital, four miles from Lowry.

Both in Adams' quarters at Lowry and in Mrs. Eisenhower's office, set up at the hospital in an auditorium adjoining the President's sick room, telephones and teletypes have been tied directly into the White House network for instantaneous and constant communications.

Adams and James C. Hagerty, the Presidential press secretary who handles liaison with the small army of newsmen assigned to cover Eisenhower, live in adjoining rooms in Cullen Hall, a bachelor officers' quarters, situated about 200 ft. from the headquarters office building.

The rest of the Eisenhower staff is in Washington, working as usual on reports that go via Adams to the Presidential level. These reports still go—by telephone, by teletype, and by daily air courier. The difference now is that virtually all of them stop on Adam's desk, awaiting the proper time for delivery—if ever—to Eisenhower. **END**

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INTERNATIONAL OUTLOOK

BUSINESS WEEK

OCT. 15, 1955



The U. S. will lay it on the line to the Russians at the foreign ministers' meeting: Do you want an East-West understanding, or a new cold war?

That's the substance of what Secy. of State John Foster Dulles told the American Legion early this week. And Dulles is determined to get an answer from the Russians when he goes to Geneva Oct. 27.

The U. S. won't be satisfied just to find out what Moscow intends to do about Eisenhower's aerial inspection plan. Soviet concessions on that won't be enough to convince Dulles that Moscow wants to relax tension.

Since the summit meeting, Moscow has violated the "Geneva spirit" both in Germany and the Middle East.

- In July the Soviet leaders agreed that German unification would be at the top of the foreign ministers' agenda. Since then, Moscow has done its best to remove the unification problem from the area of East-West negotiation.

- Last month the Kremlin suddenly opened a new offensive against the Mediterranean flank of NATO. By offering arms and economic aid to Egypt, the Russians are trying to (1) upset the military balance in the Middle East; and (2) provoke the U. S. and Britain into counteraction that would hurt their prestige in the whole Moslem world.

If this sort of thing is hard Soviet policy, and not a pre-conference bargaining maneuver, the U. S. and Britain will take a new approach to Russia. It will be a lot tougher than the Western attitude since the summit meeting.

Where necessary we will fall back on cold war positions:

- In the case of Germany, Washington and London will drop negotiations for a European security pact. They will push instead for maximum German rearmament, though it might have rough going if Chancellor Adenauer's illness should prove serious.

- In the Middle East, the two capitals already have moved. This week Iran announced, over Soviet protests, that it would join the Baghdad Pact—the military alliance between Turkey, Iraq, Pakistan, and Britain. We won't let Egypt and Israel get at each other's throats, no matter what the Russians do.

In an atmosphere like this you aren't likely to see any more U. S. visits by Soviet technical delegations, like the housing group now here (page 30).

Prospects for U. S.-Soviet trade, never very bright, will dim considerably. Canada has started negotiating a trade deal with Russia. But unless that should involve wheat, it won't cut much ice here.

With all this, though, no return to full cold war is in the cards. Russia couldn't hope to gain anything by reneging on the unwritten agreement reached at the summit conference—that both sides would work toward a plan to prevent nuclear war.

There is new evidence this week that all is not smiles among members of the top Kremlin team. It looks as if Communist Party boss Khrushchev is out to get Foreign Minister Molotov's scalp.

Molotov has just made a confession in the pages of an important party

INTERNATIONAL OUTLOOK (Continued)

BUSINESS WEEK
OCT. 15, 1955

organ. His sin: a deviation from orthodox Communist dogma in a speech he made eight months ago.

Whatever happens to Molotov now, his control over Soviet foreign policy is slipping.

Even before the confession, Khrushchev had started to move in on the foreign minister's balliwick. It was one of Khrushchev's boys, Dimitri Shepilov, who pulled off the Soviet deal with Egypt. It may be that Shepilov, who recently became a member of the Presidium, is slated to get Molotov's job.

If that happens, you'll know that Khrushchev has won another round in his fight to be the supreme boss of the Soviet Union.

Argentines are facing up to their painful economic plight. By next week they should have a prescription for the cure from economist Raul Prebisch.

Meanwhile, the Argentine Chamber of Commerce has rushed into the breach with "urgent" recommendations of its own. Among them: a free market for certain peso transactions, a tourist peso, new mortgage bonds, the end of IAPI, Peron's trading monopoly.

Pres. Lonardi is already at work. He scrapped Peron's second five-year plan this week, stopped some spending programs cold. Businessmen—in the U. S. as well as Argentina—are anxious to see what happens to the \$250-million San Nicolas steel mill project, for which the U. S. has agreed in principle to lend \$60-million (BW—Mar. 19'55p148).

Economic and political tension is ahead in Brazil (page 174).

The crisis over financial policy was getting more attention at midweek in Rio than the apparent election victory of Juscelino Kubitschek, who will take over in January. Meanwhile, Finance Minister Whitaker, despairing of getting his exchange reform plan set in motion, resigned. So did the head of the Bank of Brazil, and several cabinet ministers.

Mario Camara, new finance boss, is an able operator, with long experience in the U. S. But he can do no more than hang on. Exchange reform seems far off. And Brazil this week seems to have no government, no policy, at all.

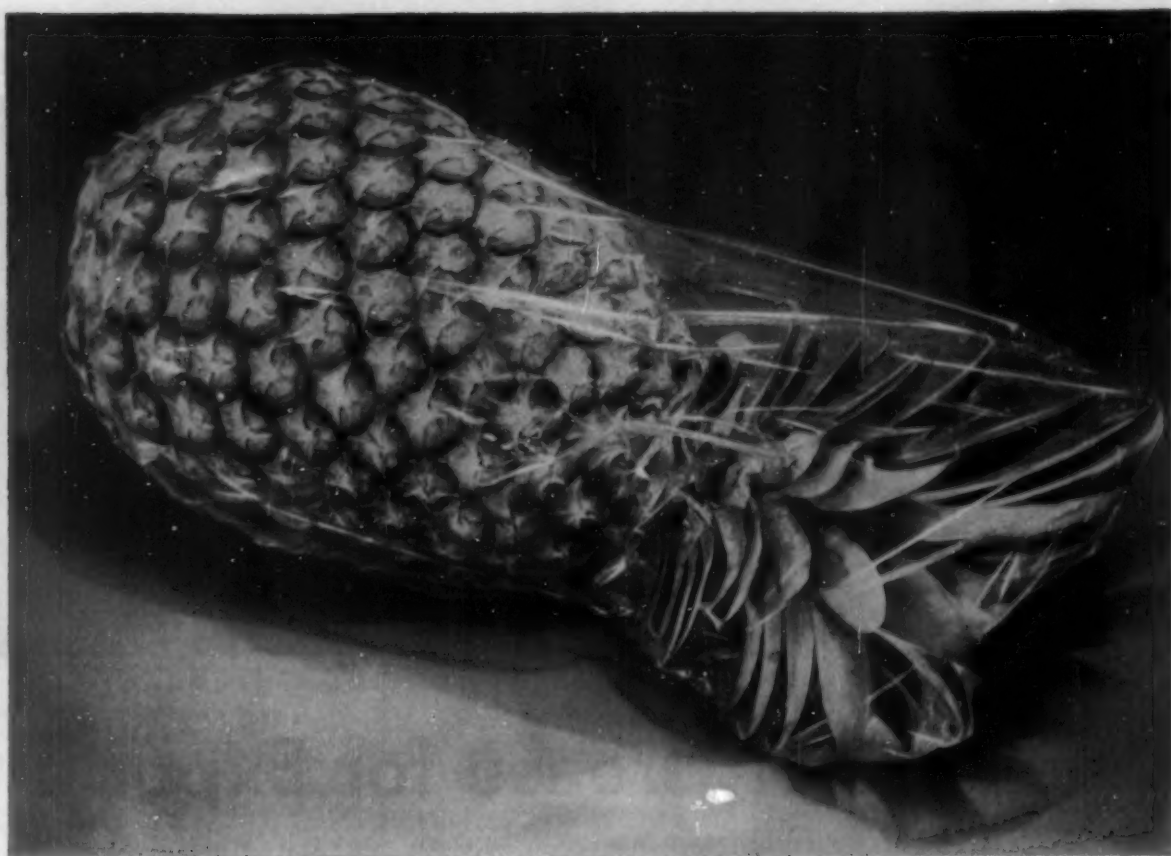
The London stockmarket rallied a little at midweek. But that may not be the end of the slide that has taken 20% off industrials since July.

British investors now are putting their money in bonds—on the assumption that the government has really decided to halt inflation.

Britain's Labor Party is trying to set a new course—one that will regain its mass support.

This week, at the party's annual conference, you could see:

- The total eclipse of left-winger Nye Bevan.
- The end of nationalization as a pillar of Labor policy.
- The beginning of a search for a new economic formula to secure full employment, social equality, rapid investment—all without inflation.



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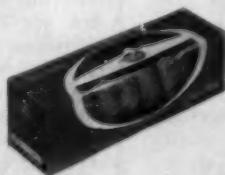
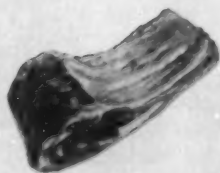
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Private banker Norbert Bogdan.



Government banker Samuel Waugh.

More Credit Grease for Exports

Samuel Waugh, president of Washington's Export-Import Bank, and Norbert Bogdan, president of Wall Street's American Overseas Finance Corp., are perhaps the two most important men in the fast expanding business of export credit.

Either one—Waugh speaking for government, Bogdan for private banking—will tell you that U.S. business has export opportunities that it never had before. And they point out that for the first time, businessmen have credit facilities to go with that opportunity, facilities that go a long way toward matching those of their European competitors in the world's capital goods markets. Both men have tangible reasons for their optimism:

Export-Import Bank is busier now than it ever has been in its 20-year history—especially in the new business of supplying lines of credit to exporters. And when Samuel Waugh was sworn in last week as president, a friend remarked: "You can be sure he didn't take over Ex-Im to conduct a holding operation. Sam's going places and he means to take Ex-Im with him."

American Overseas Finance Corp., brainchild of the Chase Manhattan Bank and four other banking colleagues, has just wound up its first three months in operation (BW—Jun. 25 '55, p. 142). It is feeling its way. But it is very, very busy. Bogdan reports that AOFB has had "hundreds of companies" inquire

about export financing, and has already delivered the goods, and made payments on "several" transactions.

- **The Odds**—Neither Bogdan nor Waugh can guess how large a role medium-term export credit—three to five years—is going to play in the nation's business abroad. That depends on all the imponderables of international economics—and politics. Nor are they quite sure how their respective organizations will work together. Outsiders already detect signs of government vs. private enterprise competition, and conflict between Ex-Im and AOFB. But both agree there's need for each other's organization. And both agree on the need for export credit.

Bogdan cites these elements in the argument for export credit:

- The U.S. financial community must meet the credit competition of other industrial nations, supply its exporters with as good facilities as do Germany, Britain, France, Italy.

- The U.S. must supply capital to underdeveloped nations—in its political as well as economic interest. In businessman's terms, it pays to have U.S. machinery and skills in on the ground floor of development.

- A nation may have exchange troubles, and while a local importer has plenty of money and is an excellent risk, the country's central bank insists he buy on time. With proper credit, the importer can buy American, the

exporter can be paid, the central bank can budget its resources, and the financier can earn interest.

Waugh buttons up the argument: "Credit is vital to an expanding economy, whether you are talking about the U.S. or the world. How many cars would Detroit have been able to sell this year for cash?"

I. A Defense Measure

One fact explains the demand for export credit: the shift from a postwar seller's market to a buyer's market. Up until two years ago, U.S. exporters had much of the world to themselves.

Then European salesmen, backstopped by eager governments, roared back into the market trying to regain lost business. U.S. exporters howled that they were being undercut, undermined, out-bid by Europeans—often subsidized by their government—offering low prices and outlandish credit terms.

For Americans, longer term credit was hardly available. Big companies carried much of the load themselves. A few got Ex-Im help, but it was a time-consuming, uncertain process. U.S. commercial banks, used to financing exports on no more than a 60 to 180 day basis, weren't much help.

- **Slowdown**—In some respects, the export credit race has slackened today. West Germany, perhaps the most ag-

gressive lender several years ago, is not making so much export credit available. Britain is a bit less active. Several other European credit institutions are going more slowly. On the other hand, France, Italy, Japan, Switzerland, and some others are hard at it.

Certainly many U.S. businessmen still beef about overseas credit problems. And despite the emergence of Ex-Im and AOFC into the field, export credit is not so easily available as many businessmen would like.

On the other hand, U.S. government officials feel that Americans can no longer complain that they are at a disadvantage. Given the kind of credit now becoming available, the growth of U.S. exports will depend on quality, price, service, salesmanship. Above all, these experts maintain, growth will depend on foreign nations' ability to get dollars to buy American. Credit—as long as it is credit and not a giveaway—will inevitably be secondary to these factors.

"Credit," remarks Waugh, "can't be a substitute for income. Sooner or later bills must be paid. That's why U.S. lending abroad can't deviate very far from the curve of our imports without getting us into the sort of subsidy operations we are trying to get out of."

Within those limits of prudence, Ex-Im under Waugh means to push ahead.

II. Ex-Im's New Status

It's quite a turnaround from two years ago. Anxious to trim spending and get the government out of business, the Administration cut back Ex-Im's activities to a trickle. Then, pressure from exporters and their champion, Sen. Homer Capehart (R-Ind.), put Ex-Im back in business. Congress upped the bank's lending authority, and made clear that the exporters were to be taken care of.

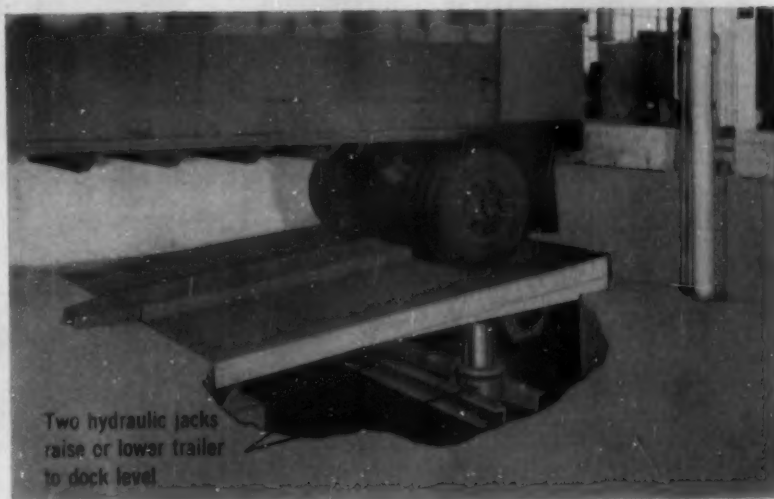
The vigor of the response shows up in Ex-Im statistics: During the first six months of 1955, the bank authorized 115 new credits, totaling \$336.7-million. That compares with 14 credits—amounting to \$76-million—in the first half of 1954. By the end of September, the total had soared to \$465.7-million, spread through 164 credit authorizations. And new applications are flooding into bank headquarters at a rate three times the past few years' average.

• **Exporters Gain**—More significant is the kind of loan Ex-Im is making. Prewar, the bulk of the lending was to exporters, but at a tiny volume. Postwar, most of the business has consisted of massive loans to Europe for reconstruction, government to government loans for development, or for improving the balance of payments.

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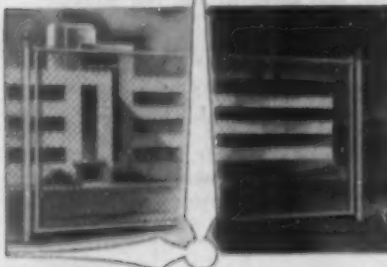
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exporters. This permits a manufacturer to offer reasonable terms in advance of sales. With a line of credit already on the books, the processing of individual loans for specific transactions speeds up (BW-Oct.9'54,p160). As of last week, Ex-Im had O.K.'d 120 of these credit lines, totaling \$169-million, to a blue ribbon list of U. S. capital goods producers.

• **Defense**—Critics of the new program point out that of that total, only 23 transactions—amounting to \$4-million—have been completed. Ex-Im answers that it takes time to start a new operation. Obtaining credit information on a whole new range of foreign buyers means a lot of digging. Moreover, lines of credit are often set up well in advance of a specific sale. And then the sale may not come off.

In effect—and this is also true of American Overseas Finance—Ex-Im is

supplying businessmen with "hunting licenses," which they may or may not transfer into a loan.

• **Diplomat's Job**—Waugh's appointment symbolizes Ex-Im's enhanced importance. A "banker's banker" from Lincoln, Neb., Waugh was pretty green when he came to Washington two years ago as Assistant Secretary of State for Economic Affairs. But he worked hard, learned fast, and earned the reputation as one of the most able and dogged fighters for Pres. Eisenhower's liberal foreign economic policies. As a booster, he wants to publicize Ex-Im's resources and activities.

He will have to be a diplomat as well. The World Bank, for one, has criticized Ex-Im's zeal to promote exports, fearing it will overlend to some countries to the detriment of their balanced long-term development. On the other side of the coin, Waugh may



New Citroen Stresses Comfort

Almost since Andre Citroen brought out his first car 22 years ago (below), the French public—and auto buffs everywhere—have been waiting for a new model. Last week at Paris' chic Salon de L'Automobile, a new Citroen (above) was unveiled. It is almost as avant-garde as its predecessor in 1933.

Outside, the new Citroen resembles an American car, perhaps

the Studebaker. Inside, it incorporates a number of engineering novelties—including the front-wheel drive that was one of the main features of the earlier Citroen. The new car has automatic gear-shift, still a luxury in Europe.

The last Citroen has a new type of hydraulic suspension already introduced in Citroen's tiny CV-2, now being built by Panhard, another French manufacturer. The accent is on comfort, something the old car lacked but that nevertheless didn't prevent it from being France's most popular auto and from making Citroen the country's largest auto maker after the government's Renault. Citroen, owned by Michelin, the French tire firm, now talks of invading the U.S. market with the new car, to sell here for less than \$3,000.





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Man with stapler beats man with hammer 2 to 1

What you see here is a race between a woodworking shop's two best cabinetmakers shown assembling haberdashery shelf dividers. One is doing the job the conventional way, with hammer, finishing nails and nail set. The other is using the new Bostitch T3 Air-Driven Tacker which drives and countersinks nail-type staples semi-automatically.

Results: staples beat nails better than 2 to 1.

The Bostitch T3 won out on other counts, too. The shop foreman reports staples more accurately placed than nails. And each staple is neatly countersunk, its $\frac{3}{4}$ " legs pressing outward in the wood to give greater holding power. Pressing the slim nose of the T3 against the work triggers its action, leaves one hand free for positioning and assembly.

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have to answer criticism from private banking.

III. Not All Harmony

On the surface, American Overseas Finance and Ex-Im seem to be cooperating smoothly; some joint projects are in the discussion stage. But behind the scenes there are signs of disagreement. Some Ex-Im men predict smugly that AOFC has "a lot to learn" about international export finance. They think AOFC's rates are high. But they insist that they won't undercut AOFC unless they are convinced that AOFC's higher rates would cost an exporter the business.

AOFC might well contest that. Its officials point out that as a government entity, the bank can and is quoting lower rates. They hope that Ex-Im will now pay heed to its mandate, to finance only that area of export business where private enterprise can't or won't do the job.

It's normal, says AOFC, that its rates be higher than Ex-Im. It is a private organization, paying taxes, that must do a job and turn a profit.

• **Bank's Offspring**—AOFC's parentage is distinguished: Chase Manhattan, Chemical Corn Exchange Bank (New York), Pittsburgh's Mellon National Bank & Trust Co., and the National Bank of Detroit. Its staff are old hands: For example, Bogdan, now in his mid-fifties, was vice-president and treasurer of Ford International, and before that vice-president for foreign operations of the J. Henry Schroeder Banking Corp.

Generally, AOFC is interested in financing only capital goods—the kind of basic stuff that will add to a nation's productivity and dollar earning capacity. AOFC is prepared to finance 60% of a sales transaction, calling on the foreign importer to make a 20% down payment and the U. S. exporter to carry 20% of the burden on his own. AOFC can place one third of its own liability under an Export-Import Bank guarantee.

• **More Flexible**—AOFC stresses the flexibility of its system. It has found in three months of business that a private banking outfit can work faster than government—for example in assessing the credit worthiness of businessmen around the world. It can make loans to more countries than a government organism that must keep in tune with the political as well as economic aspects of foreign policy. With a few exceptions, AOFC lends throughout the free world.

Finally, outsiders have no doubt that AOFC, as a private business, can tailor its terms to the business at hand—and not be too rigid in the matter of down payment, exporters' share, or the definition of capital goods. **END**



ABC...and the Reader

BACK IN 1914—forty-one years ago—a group of advertisers, advertising agencies and publishers joined in a project that has come to mean a great deal to the millions who, like you, read business magazines. The project, initiated at a time when circulation claims were rarely verified, was intended to achieve and maintain higher standards of integrity in publishing and advertising practice by providing means to audit paid circulation. Out of that effort came an organization known as the Audit Bureau of Circulations, a voluntary, non-profit, cooperative association, known for short as ABC. Its symbol appears at the head of this page.

We are proud that McGraw-Hill publications were among the founders and charter members of the Audit Bureau of Circulations.

Today the Bureau numbers 3,670 members. These include advertisers, agencies, and publishers of newspapers, farm papers, general magazines and business journals such as this one. These publisher members hold their memberships and their right to display the ABC symbol in their publications only so long as they live up to the circulation standards that are established through the Bureau.

It is one thing to set up high standards; it is another to see that those standards are maintained. This latter and all-important function is performed by a staff of auditors maintained by ABC to check periodically on the circulation practices of the publisher members. When a business magazine, such as this one, joins the Bureau it agrees that the ABC auditors shall have "the right of access to all books and records." Their inspection may dig into the files of original subscription orders, payments from subscribers, paper purchases, postal receipts, arrears of payments, editorial expenses and many other significant items. Sometimes the auditors go behind the records and seek verification of purchase and payment from subscribers themselves.

The information thus obtained and certified by the Bureau then becomes available to the public

and constitutes an authoritative report on the publication's circulation practices.

The advertisers and agencies benefit directly from the ABC because it provides a generally recognized factual yardstick by which the circulations of member publications can be measured and appraised. Every paragraph in an ABC report on a business publication gives the advertisers data that help them make intelligent use of the publication as an advertising medium.

But the ABC renders a service of vital concern to the reader as well. The Bureau audits paid circulation only, and it is through this payment, whether by subscription or newsstand purchase, that the reader keeps the editorial policy of a publication responsive to his needs. His decision to buy or not to buy records his judgment on each publication, and the ABC-audited and certified circulation reports make the sum of these judgments known to all concerned.

So the editors of ABC publications must constantly keep their editorial services up to the mark if they are to survive a competition in which the reader's right to buy or not to buy is paramount. Each paid magazine or newspaper will prosper or fail as it wins or loses the voluntary patronage of thousands or millions of readers. And—the ABC is scorekeeper in this vital contest.

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win
far more
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Indonesia Snubs the West

The Western world has been so occupied recently with the crisis in North Africa, and the upcoming foreign ministers' meeting at Geneva, that it has hardly noticed the blow it has just suffered in Indonesia's first national elections.

The huge vote piled up by the three anti-Western parties (above) means that in this election Indonesia has turned its back on the West. This result is bound to weaken the free world's military and economic position in Southeast Asia. If the 80-million Indonesians end by going all the way to Communism, it could prove to be the worst defeat for democracy in Asia since the Communists took China.

Indonesia has made its choice in a Western-style election that appears to have been relatively free—an election that wouldn't have been held if the U.S. hadn't backed the ending of Dutch rule in 1949.

On the basis of nearly 80% complete returns, the voters gave an overwhelming majority to the Communists (20%),

the anti-Western Nationalists (29%), and the more extreme of the two Moslem parties, Naheatul Ulama (24%). The outspokenly pro-Western Socialists were virtually wiped out. The moderate Moslem Masjumi party—believed since independence to be the country's majority party—will probably not get more than 30% of the votes.

• **Prospect**—It's possible the Communists will stay out of the new government. This may turn out to be a coalition between the non-Communist parties—the Nationalists and the two Moslem groups—dominated by the Nationalists. But the Communists will try to call the tune through infiltration into both the Nationalists and the radical Moslems. They will have a virtual veto on government policy through their large bloc of votes in the new parliament. To enter such a government grouping, the Masjumi would have to let its anti-Communist program go by the board.

This victory for the anti-Western parties will have important repercussions outside Indonesia. The largest

and wealthiest part of Southeast Asia—that sensitive area bordering on Communist China—is now threatened with Communist penetration. The pivot of the whole Southeast Asia Defense Organization led by the U.S. is just across the Malacca Straits from Indonesia in the British colony of Singapore; the Indonesian vote is bound to increase Nationalist and Communist Chinese pressure there to oust the British.

• **Business Gloom**—The election will have economic consequences, too. It spells the end of any hopes for improvement in business collaboration between Indonesia and the West. At best you can expect a continuation of the policies you had under the Communist-Nationalist bloc, which ruled Indonesia for most of the two years before the election.

Through a combination of graft and bad planning, that government brought commerce in many fields to a stop. Investment was discouraged. Some foreign firms in Indonesia—such as General Motors—pulled out. A Masjumi-led caretaker government, which was in office for a few weeks before the election, started to improve things (BW—Oct. 1'55, p130). But now you can count that out.

U.S. business interests in Indonesia—petroleum, rubber, export-import houses, and some manufacturing plants—don't know what to expect now. Oct. 4 was "Black Tuesday" on the Amsterdam stock exchange; Indonesian issues sagged as preliminary election returns came in.

• **Basis for Hope?**—Some Western diplomatic observers and businessmen have a somewhat less gloomy outlook. They believe Indonesia's traditional spirit of compromise will prevail and that the coalition government that comes to power will at least partly neutralize the radical elements.

Even so, the election results were a shock to Western diplomats—particularly the U.S. State Dept., which has carried the ball for the West in Indonesia since 1949. For weeks before the election a Masjumi-Socialist sweep had been predicted. But now it seems clear that the Nationalists had laid the groundwork for their victory during their two-year rule. They pushed Nationalists into local administrative offices in the villages. These village chieftains told voters before the elections that a vote for Masjumi would cut off government salt, oil, and kerosene.

• **Reds and Extremists**—The Communists meanwhile got freedom to build their party in return for supporting the Nationalist government. They used it to good advantage. Their hold on SOBSI, the Indonesian Communist trade union federation, was strengthened on the plantations and in the

cities. More important, the Communists had big slush funds—from the Chinese and Russian embassies in Jakarta as well as from blackmail paid by the country's 34-million Chinese. The Communists probably spent \$5-million on the election.

The fanatical Moslem Naheatul Ulama used a combination of Tammany Hall tactics and religious fanaticism. Their strength derives from the village "Kayais," Moslem religious leaders, who told their parishioners that they would not go to heaven if they did not vote for the NU.

• **Weakness of Moderates**—Meanwhile both the Masjumi and the Socialists suffered from lack of organization. The Masjumi, modernists who no longer cling to orthodox Islam, were unable to use the village mosque as their center of strength. The intellectual Socialists had no real roots among the Javanese workmen. Neither the Masjumi nor the Socialists had money.

"It's not a matter of ideology," one opposition leader commented. "We failed because we tried to explain and convince rather than excite."

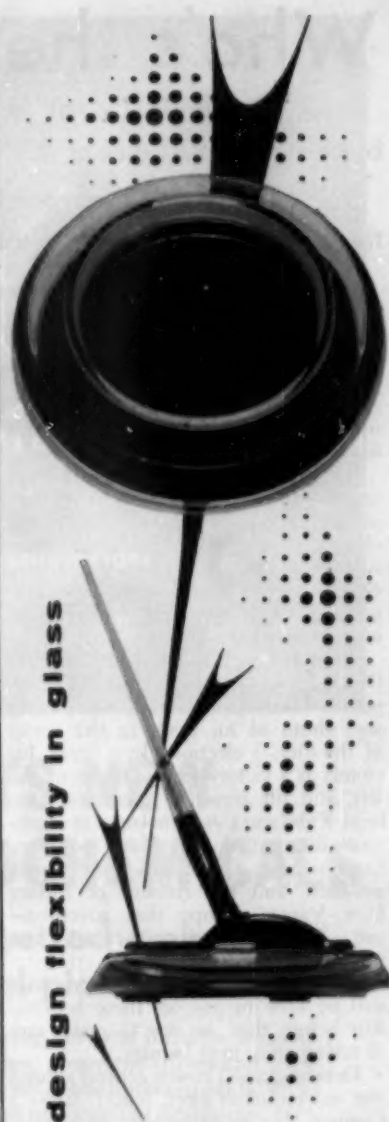
The appeal to reason was not enough against the Nationalist-Communist super-nationalist line. Chauvinism had been brought to fever-pitch in the country during last spring's Bandung Conference (BW—Apr. 30'55, p134).

• **Cold Shoulder**—Certainly there is nothing in the Indonesian Nationalists' record to encourage the West. During the past two years they have steadily moved closer to Peking and further from the U.S.

In the economic sphere the Nationalists express their antagonism to the West in a campaign against foreign business. They see this as a campaign to end Dutch economic influence in the country. But it works out to an attack on all foreign business.

The best example of this attitude was the 1954 effort to set up Indonesian trading companies and squeeze out the Big Five Dutch and British firms, which had dominated the archipelago's pre-war commerce. The Nationalists excluded all foreigners from getting export and import licenses. But since there were no real Indonesian firms to take over, the whole program turned into a wholesale means of graft for government officials.

• **Rubber and Oil**—Rubber plantations in Indonesia also suffered under the Nationalist regime. They faced one strike after another. Illegal tapping of trees has channeled large quantities of rubber off the plantations by smuggling. And one Western economist who knows Indonesia well reckons that \$100-million worth of Indonesia's total \$700-million to \$800-million annual raw materials product is moving abroad illegally. **END**



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Who's the Boss In Brazil?

● Nominally, at least, it's Pres.-elect Kubitschek, but now he must pay off his backers.

● Among them are Brazil's Communists, reputedly the strongest Red group in the Americas.

● With extremists behind the scenes, and financial problems at crisis point, republic's future is tense.

Brazil has elected a new president. And, as if to celebrate, it has plopped into the middle of a new and difficult financial policy crisis.

That the big, always astounding country has done either is hardly surprising. Yet the nature of the election choice, and of the economic problem, is worrying many Brazilians, and Americans as well. Business and political uncertainty, tension—and perhaps serious trouble—loom ahead.

At midweek, Juscelino Kubitschek de Oliveira, 52, suave governor of prosperous Minas Gerais state, was pulling way ahead of his rivals in the count of the Oct. 3 election. In a sense, his victory is a victory for the forces of the left, and the forces of confusion. Behind Kubitschek is a melange of workers, disgruntled machine politicians, Communists, a few anti-foreign businessmen, and the remains of former Pres. Vargas' troupe that governed—and mismanaged—Brazil until last summer.

Not the least of Kubitschek's worries will be how to pay off these backers. But before that, he has to make sure of taking office next January.

• **Demagogues**—Tension centers around the vice-president elect, Joao ("Jango") Goulart. He was a favorite of Vargas. As minister of labor, he fancied himself a kind of Brazilian Peron, persuaded the weak Vargas to indulge in demagoguery. The Brazilian army was so upset by Goulart that it forced his ouster from the Labor Ministry in a sequence of events that resulted in Vargas' own resignation and suicide last August.

Today, the Kubitschek-Goulart group is anathema to most of the military leaders. Indeed, there has been talk of an army move to keep them out of office. But that seems less likely now. Unlike most armies in Latin America, the Brazilian military has tried to be nonpolitical, styling itself as the guardian of democratic honor. Last week, the soldiers assured the nation they would abide by the constitution.

• **Reds**—As ominous to many Brazilians is the apparent participation of Brazil's Communists in Kubitschek's election. They're said to be the largest

party organization in the Americas. They promised to deliver half a million votes to Kubitschek and Goulart, and they seem to have done it. Certainly very few of the votes came from hard-core Communists; most were from sympathizers and dupes. Just as certainly, Kubitschek is no Communist. But some observers fear that he may underestimate their power and intentions.

Kubitschek will have to follow a tortuous path picking a cabinet. The world's attention will naturally swing to his choice of finance minister, who will hold Brazil's most difficult and



Brazil's Pres.-elect Kubitschek

crucial job. It's likely that Kubitschek will lean to a businessman or banker from Sao Paulo, the nation's financial and industrial heart. That way he may be able to salve the hatred of the Paulistas, who are anti-Vargas to the core.

• **And Money**—Once in office, Kubitschek will have to shore up the flabby government structure of Brazil.

The most serious task involves economics. Kubitschek will take over a country that in 10 years has turned in one of the most impressive records of industrial and economic progress in Latin America. Yet, as Brazilians say, the record was achieved by the nation

"in spite of itself." Now progress has become fitful and halting. Printing press inflation, dire shortages of fuel and power, and a continuing balance of payments crisis bedevil Brazil—and its many creditors.

This week, Finance Minister Jose Maria Whitaker resigned, giving up his months-long effort to put through an exchange reform that would have ended the near-paralysis of Brazilian business. His plan failed when caretaker Pres. Joao Cafe Filho, who is filling out Vargas' term, refused to institute the program on grounds of a technicality. The plan would have opened the way to a free market, devalued the cruzeiro, wiped out a bewildering system of multiple exchange rates, brought an end to the anxious waiting that has all but paralyzed Brazilian business. Now the paralysis will continue.

Brazilian electoral platforms are vaguer than most; and while Kubitschek said before the election that he endorsed Whitaker's plan, no one is sure where he stands this week.

• **Anti-Foreign Pressure**—There's nothing in Kubitschek's background to indicate antipathy to foreign capital. While governor of Minas Gerais, he launched and followed through an impressive public works program, invited foreign capital to help, and managed to get a \$5-million U.S. loan to build up agriculture. But many of his backers resent the foreigner.

That may show up in the crucial question of oil. In the matter of allowing foreign companies to help develop Brazilian oil, Kubitschek will doubtless play a cautious, non-controversial game. His friends suggest he will allow free rein, for the time being at least, to the government oil monopoly that is now struggling with the task of finding and developing the country's oil resources.

• **Road Show**—U.S. and European capitals probably will get their first look at Kubitschek next month. He plans a combination vacation ("to get away from the office-seekers") and business trip. He may attempt to talk Brazil's creditors—of which the U.S. is the largest—into extending the term of its debt payments, now a mighty drain on Brazilian exchange. He may talk up investment in Brazil in an attempt to quiet worries about his regime.

Uncertainty will continue, however—at least until Kubitschek indicates just how far he will follow the dictates of his backers. And, assuming that he attempts a solid economic and political housecleaning, the question remains whether he can ram recommendations past the vacillating, divided Brazilian congress and bureaucracy. Many have tried and failed. **END**

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In Business Abroad

British Auto Production Up 16%

But Exports Barely Gain

British passenger car production during the first eight months was 570,000, a 16% increase. Of that total, 45% were exported. But the increase in sales abroad was a measly 3%, one more measure of the growing competition in world auto markets.

Britons did better with commercial vehicles—at home and abroad. Output is up 30% on the year, exports 20%.

Meanwhile, Britons, Americans, all of Europe are watching a new phenomenon in the world auto market: a bit of competition from Communist assembly lines. Russia now ships 300 cars monthly to Norway; the Czechs are selling 40 a month in Denmark; Poland and East Germany are getting into the act.

Free World Production Boom

Mirrored in U. N. Statistics

The United Nations came up this week with some spectacular statistics proving just how big the boom in Western Europe and the U. S. has been. Industrial production in the free world during the first half of 1955 was almost double the 1937 rate. It was 9% higher than in first-half 1954.

In Western Europe the general index of industrial production for the second quarter of 1955 stood at 179 (1948 equals 100). In no country was first half production under the same period in 1954. In the U. S. industrial production for the second quarter of the year reached 133 on the same index.

U. N. statisticians found the main push behind the rise was in heavy industry—metals and chemicals—throughout the world rather than in consumer lines such as textiles and food processing.

Business Abroad Briefs

Mexico has begun to clean up—and appraise—the damage wrought by a series of hurricanes and floods in its coastal and central provinces. Although the government is optimistic, the destruction will dampen what has promised to be Mexico's busiest, most prosperous year. The oil industry around Tampico has suffered heavily, and as much as 5% of the nation's better lands are flooded.

Money coming home: Americans are taking profits on their Canadian securities, and apparently bringing money home for reinvestment. Thus Ottawa explains the softening of the Canadian dollar vis-a-vis its U. S. counterpart. At midweek, the premium on Canadian currency had dwindled from a January high of 3.7¢ to .7¢. Canadians, long worried by the effect of the premium on their export trade, are pleased.

Aluminum Limited, the expanding Canadian aluminum giant, will pour \$17-million more into its Jamaica (British West Indies) bauxite facilities. By mid-1957, alumina output there will be doubled, to about 543,000 tons, and Aluminium's Jamaica investment will top \$60-million.

Atomic Power Hits the Road

Latin America is to get three small nuclear producers of electricity, perhaps with more to follow. Target time for completion: three years.

Atomic reactors may be generating electricity for general use in Latin America within three years. American & Foreign Power Co., a U.S. holding company that controls power networks in 11 Latin American countries, will shortly order three small reactors, hopes to have all the necessary clearances and construction completed within that time.

American & Foreign Power won't say where the reactors will go, but outsiders speculate that Brazil, Cuba, and Mexico are the most likely sites.

The three reactors will be comparatively small by U.S. power standards—10,000 kw. each—a size considered experimental here. (Detroit Edison is planning a 100,000 kw. atomic generator, and Consolidated Edison of New York is proposing one of 200,000 kw.) But A&FP notes that many of its conventional plants in Latin America—which serve limited areas—are no larger than 10,000 kw.

• **Logical**—American & Foreign Power's branching into atomics is a logical move for a company doing most of its work in countries that are both power-hungry and fuel-shy. In some of its areas, where there are no hydro resources, and imported fuel oil can run as high as \$2.50 a bbl., atomic fuel might cost enough less to bring reactor-generated current below the cost of current generated by fossil fuels.

The initial reactors, however, probably won't go into now-barren areas. The company expects to put them into the midst of its widest existing systems—partly to plug into established distribution grids, partly to have the costs absorbed into a large system and so avoid having to charge substantially more for the atom power. Later, with the experience gained from the first plants, the company will be able to move farther afield. Right now, with power demands soaring everywhere, any of the company's networks could easily absorb the extra atom power.

Reactors are a natural for the company, which is the only large American utility that operates entirely outside the U.S., and so is the only one that doesn't have to heed high consumption and low fuel costs as an argument against nuclear experimenting.

A&FP hasn't revealed where it will buy the reactors. It plans to get three different types from as many producers, then test them against each other. The company is also mum on costs. But

again outsiders estimate that the installed cost of the three reactors—including the high construction and shipping costs—will run between \$15-million and \$20-million, or a little more than twice what it would cost them to install equivalent conventional generators in the same places. A&FP, which has spent some \$60-million in each of the past two years on Latin American expansion, already plans to

Naturalizing the Volkswagen

German car to be produced at Jersey plant as demand in the U.S. continues to climb.

Heinz Nordhoff, managing director of West Germany's Volkswagen Works, floated into the U.S. on a cloud of optimism last week, and told of big plans for the droopy-nosed Volkswagen auto. A prewar official of General Motors' Opel factory in Germany, Nordhoff has plenty of basis for his optimism. Volkswagen is far and away the biggest-selling foreign car in the U.S.—moving from 600 registrations in 1952 to perhaps as many as 35,000 this year (BW-Apr.9'55,p140).

The U.S. market was the impetus behind Volkswagen's purchase two months ago of the Studebaker-Packard assembly plant at New Brunswick, N. J. Nordhoff's trip is aimed at lining up suppliers for the Jersey plant, where VW plans to assemble its product, marrying U.S. parts such as body stampings and wheels with West German engines. Budd Co., Philadelphia, looms as a potential large supplier.

• **To Meet Demand**—Nordhoff explains that the VW needs U.S. manufacturing facilities to meet demand; the home plant in Wolfsburg is hard put to keep up. Furthermore, Nordhoff complains that North Atlantic shipping is costly, and in tight supply.

For the present, it looks as if VW will maintain its \$1,495 port-of-entry price tag. Nordhoff hopes that any increased cost from higher-priced U.S. labor will be more than offset by savings on freight and duty. (Like many German plants, VW is importing U.S. steel right now.) One New York auto company economist reckons that VW may even increase its profit-per-car by manufacturing in Jersey.

It may take hard-selling to push Volkswagen sales much higher. The

spend that much again next year, so the atom program won't be too much of a boost—or a burden.

The possibly higher initial costs of atom-produced power will be absorbed through a whole network—and the governments concerned are expected to be so enthusiastic about the introduction of the reactor-generators that they will make no trouble about a slight increase in over-all rates.

Indeed, the public relations aspect of the plan should work to A&FP's advantage. Latin Americans have been touchy about foreign-owned utilities, and extremists are always ready to howl for the utility's scalp when it asks for rate increases. Bringing the first atom power to Latin America should be some help.

price is substantial by U.S. standards, since for the same amount of money you can buy a fairly new, much larger, American used car. But Nordhoff believes VW's appeal is to second-, or third-car, families, and to everyone who wants a handy, economical (35 mi. per gal.) knockabout vehicle. And one day, says Nordhoff, VW may be able to reduce its price.

• **Exclusivity**—First, the New Brunswick plant will have to get rolling along. Nordhoff expects manufacture to begin by next October, and says the plant can easily handle 100,000 cars yearly. Meanwhile, the company is trying to strengthen its distribution system by persuading reluctant foreign car dealers—who handle many lines—to go exclusively VW.

That's one of Nordhoff's prime problems. On the basis of 35,000 cars this year, VW's 800 or so dealers will average 43 cars apiece. They can't possibly live off VW alone. As dealers are added, and sales climb, the ratio might grow to one able to support exclusive dealing—with used cars, heavy advertising, and all that goes with it. But finding enough good dealers is one of the toughest jobs in autodom. That's where Henry Kaiser broke his pick, and where Studebaker-Packard and American Motors are having trouble.

Nordhoff's thesis to dealers is that VW is in the U.S. to stay. "I see a necessity in the future for a partnership between Volkswagen and investors in this country," he says, hinting a stock issue some day. But that will take time and may get complex. As a former Nazi property, VW's ownership is still undetermined, and it's being run more as a trust than a corporation. **END**

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WRITE RHODE ISLAND DEVELOPMENT COUNCIL
ROOM 301, STATE HOUSE, PROVIDENCE, R. I.

PROBLEM

A manufacturers representative wanted additional accounts recently

SOLUTION

He ran this ad in the "clues" Section (Classified Advertising)

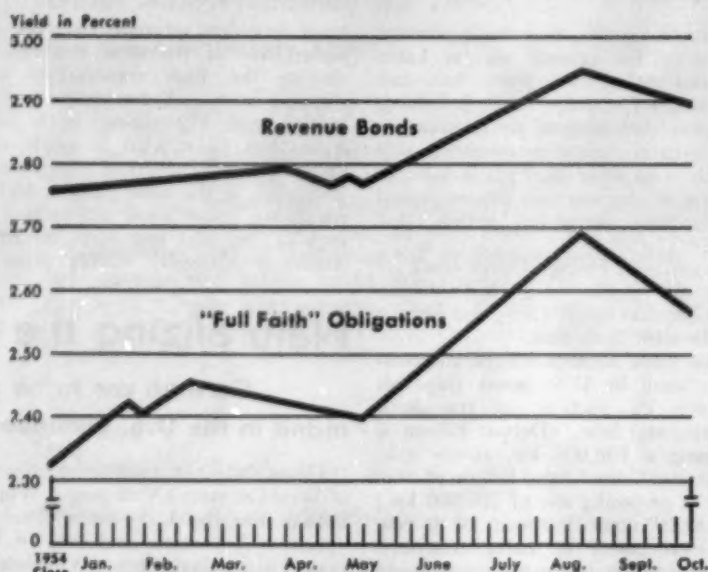
Dallas Mfg. Agent calling on industrial accounts desires additional line. RA-6000, Business Week.

RESULT — 32 REPLIES

He got what he wanted and so can you through the "clues" section of BUSINESS WEEK. For information just drop us a line.

THE MARKETS

Municipal Yields Stop Rising



Data: Standard & Poor's Corp.; Dow-Jones.

©BUSINESS WEEK

Squeeze Shifts to Short-Terms

The squeeze is getting tighter on borrowers in the short-term sector of the money market. You could see it this week in these happenings:

- On its customary offering of 91-day bills, the Treasury had to pay 2.257%, the highest short-term cost it has faced since June 8, 1953.

- Leading finance companies felt constrained to boost the rates on their short-term note offerings in order to keep them moving.

- The New York Fed announced that the average cost of short-term bank loans in Manhattan had shot up last month to 3.48%, equal to the postwar peak of just two years ago.

The picture is notably different for long-term borrowing. To be sure, the long-term market bears plenty of scars from the government's shift to credit restrictions as a curb on the galloping economy. But long-term borrowing has lately had a chance to recuperate from its earlier pummeling.

- **Municipals**—The municipal market nicely points the moral (chart). Not long ago, it was a scene of wailing (BW—Sep. 10 '55, p62).

Now as the chart above shows, the three-month trend has reversed; for some weeks, yields have been dropping and prices, of course, have risen to match.

True, this recent improving trend in the long-term money market may prove short-lived. And that may be particularly true of municipals.

During the summer spell of price weakness many would-be municipal borrowers temporarily gave up the idea of sending new issues to the market. They figured they would be assessed too high borrowing costs. As a result, the total of new municipal offerings in the first nine months this year dropped 21% under the year-earlier figure. (September alone revealed a 40% slide.) Obviously, this has done much to help the market regain its equilibrium.

Now, however, things are changing again. Two prominent borrowers who rejected bids last summer on new issues as "too costly" took advantage of the recent rally and this week reoffered their bonds with satisfactory results.

Thus, it's conceivable that the municipal mart may soon be flooded with new offerings again. Whether it has acquired in recent weeks enough new basic strength to handle such a task remains to be seen.

- **Paradox**—The rise of short-term rates at a time when long-term rates are drifting down looks like a paradox if you confine your range of vision to the past 25 years in which governments

have managed money rates. If you go back further, the paradox fades.

Only since the 1930s, when the money managers took over, have rates held to a neatly graduated pattern, with the most distant maturities drawing the highest rates. In the free market days of the 1920s, when supply and demand were king, short-term money was frequently more costly than the long-term brand.

• **The Targets**—The most recent developments have stemmed largely from the types of credit at which the authorities are aiming their restrictions: bank loans, consumer credit, and mortgage financing. The chain of reaction goes like this:

When lenders need more cash to meet these sorts of loan demands, they normally start in by disposing of lower-

yielding, earlier-purchased, short-term holdings. They keep this up as long as it is profitable to shift them into the new loans. Thus in the past 12 months, New York banks, which have sharply increased their loans, have at the same time pruned some \$3.1-billion off their government holdings maturing in five years or less. To counter this trend, the money managers have sought to make such switching unprofitable, and so choke off the extension of new loans.

Money experts differ, as usual, on how much narrower the gap can become between short-term and long-term rates. Some of the seers predict that if the demand for new loans is unchecked it may not be long before short-term money will actually cost more than for maturities of 10 years and up.

How August-September Rally Gains Have Eroded

	August Low	Sept. 23 Level	The Gain Then	Recent Level	The Gain Now
Allegheny Ludlum Steel.....	\$52.25	\$59.12	11.0%	\$50.25	- 5.6%
Allied Chemical & Dye.....	105.00	115.62	10.1	101.50	- 3.3
Aluminum Co.....	66.25	87.00	31.3	70.50	- 6.4
Amerada Petroleum.....	89.50	97.50	8.9	85.00	- 5.0
American Cyanamid.....	55.50	61.50	10.8	54.50	- 1.8
American Potash & Chemical....	81.75	90.50	21.7	83.75	- 2.4
Anaconda Co.....	68.87	75.37	9.4	62.00	-10.0
Atchison, Topeka & Santa Fe....	129.50	147.00	13.5	130.00	- 0.4
Atlantic Coast Line.....	43.25	49.50	14.5	41.50	- 4.0
Atlas Powder.....	60.00	62.50	4.2	53.00	-11.7
Bethlehem Steel.....	142.50	164.00	15.1	146.12	- 2.5
Chrysler Corp.....	82.37	99.37	20.6	90.62	-10.0
Cleveland Electric Illum.....	36.25	39.25	8.3	35.37	- 2.2
Colgate-Palmolive.....	53.25	59.00	11.1	54.50	- 2.3
Commonwealth Edison.....	43.75	46.75	6.9	43.00	- 1.7
Corning Glass.....	63.00	71.75	13.9	63.00
Dow Chemical.....	50.25	57.62	14.7	51.87	- 3.2
E. I. du Pont de Nemours.....	213.50	230.87	8.1	202.25	- 5.3
Eastman Kodak.....	76.25	85.25	11.8	77.00	- 1.0
Evans Products.....	68.00	79.75	17.3	65.00	- 4.4
General Motors.....	124.75	143.87	15.3	133.62	- 7.1
Goodyear Tire & Rubber.....	52.50	65.12	24.0	57.00	- 8.6
Gulf Oil.....	80.25	93.62	16.7	81.00	- 0.9
Honolulu Oil.....	41.00	45.00	9.8	38.00	- 7.0
Illinois Central.....	58.25	67.37	15.7	58.25
International Nickel.....	74.37	84.62	13.8	69.50	- 6.5
International Paper.....	103.00	117.50	14.1	103.00
Johns-Manville.....	82.00	87.25	6.4	79.39	- 3.2
Kaiser Aluminum & Chemical....	33.25	39.62	19.2	34.50	- 3.7
Kennecott Copper.....	117.50	122.50	4.3	101.50	-13.6
Minnesota Mining & Mfg.....	98.25	111.00	13.0	100.00	- 1.8
Monsanto Chemical.....	40.12	50.37	25.5	43.75	- 9.0
National Gypsum.....	49.37	58.87	19.2	49.87	- 1.0
National Steel.....	65.75	75.50	14.8	65.50	- 0.4
Pittsburgh Plate Glass.....	81.50	92.50	13.4	80.00	- 1.8
Radio Corp.....	45.62	50.75	11.2	45.00	- 5.7
St. Joseph Lead.....	49.00	53.00	8.2	44.50	- 9.2
St. Regis Paper.....	39.50	45.37	14.9	38.50	- 2.5
Sears, Roebuck.....	93.00	115.75	24.5	102.50	-10.2
Sharon Steel.....	41.25	48.75	18.2	45.00	- 4.2
Southern Ry.....	91.75	98.62	7.5	86.00	- 6.3
Standard Oil (N. J.).....	129.87	139.12	7.1	125.00	- 3.8
Timken Roller Bearing.....	57.12	68.75	20.4	58.00	- 1.5
Union Carbide & Carbon.....	92.25	112.37	21.8	98.50	- 6.8
Union Pacific.....	156.00	175.50	12.5	153.50	- 1.6
United States Pipe & Foundry....	98.00	107.50	9.7	87.50	-10.7
United States Rubber.....	43.00	49.75	15.7	43.50	- 1.2
United States Steel.....	80.25	93.12	23.6	83.50	- 6.4
Wheeling Steel.....	51.75	60.12	16.2	49.12	- 5.1
Youngstown Sheet & Tube.....	89.00	107.00	20.2	92.00	- 3.4



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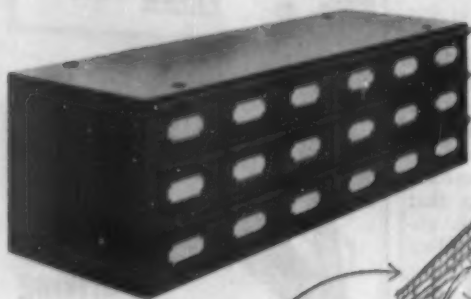
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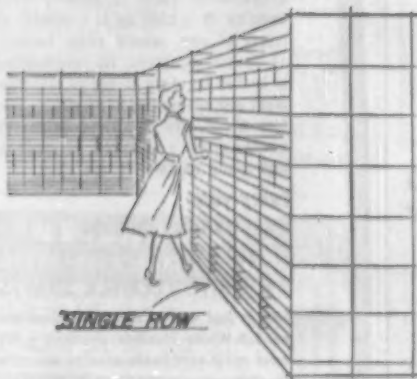
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Wall St. Talks . . .

. . . about pension fund
common stock holdings . . .
lure of building supplies . . .
Adam Hat ventures.

Corporate pension funds may not own quite so much common stock as many people imagine. A recent SEC study shows that 1954 yearend assets of all corporate pension funds—except those managed by insurance companies and those maintained by the latter, by banks, and by railroads—added up to \$114-billion. But 53.5% of this was invested in corporate bonds, another 17.8% in U.S. government obligations and only 18.5% represented common stock holdings.

Stock traders recently stopped paying much attention to rumors. But here's a sample of the latest crop: Goldman, Sachs & Co. will manage the first public offering of Ford Motor Co. shares; General Precision and General Time will soon merge; Pabco Products has a couple of "big deals" on the fire. Latest rumor denials: Carpenter Steel has no stock-split "under consideration at the present time."

The investment trusts recently had a \$169.8-million stake in building-supply commons, reports the Assn. of Investment Companies. Their five biggest holdings: 26 trusts held \$30.7-million of National Lead shares; 24 had \$17-million of U.S. Gypsum; 24 had \$14.8-million of Johns-Manville; 10 owned \$10.9-million of Sherwin-Williams; and 40 held \$10.5-million of American Radiator.

Diversification has no limits these days. For example: Adam Hat Stores, Inc., has purchased outright from its president, Harold N. Leitman, franchise rights for the bottling and sale of Canada Dry beverages in West Germany and, partly from Leitman, a 75% interest in another franchise covering Japan and Okinawa. It's also soon expected to purchase Gemex Co., leading watch band maker.

Market letter gleanings: ". . . From a trading angle we would expect lower prices." (Filor, Bullard & Smith) . . . "Technically . . . the market is working into a line formation from which will arise a decisive extension of the decline or a determined resumption of the recovery." (Thomson & McKinnon) . . . Watch investor confidence. It "can represent the difference between the same stock selling at 10 times earnings or 20 times earnings" (Walston & Co.).

Looking Back

will show you how far

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PERSONAL BUSINESS

BUSINESS WEEK

OCT. 15, 1955



Stamp collectors are eagerly looking forward to Nov. 15. That date marks the start of the sale of the Alfred H. Caspary collection, largest classic collection in the world and estimated to be worth about \$2-million.

The event heavily underscores an important characteristic of the hobby often overlooked by the amateur—the near certainty of a good return on careful investing in stamps. There have been cases, for example, where an estate's stamp collection has realized more at sale, for the money invested, than its art collection.

Not every stamp collection is valuable, of course; some aren't worth a plugged nickel. But professional philatelists say that the intelligent collector should certainly get his money back if he wants to sell.

A lot of people "invest" in U. S. mint (new and unused) stamps—they can always be used for postage if they don't increase in value. Most philatelists frown on this type of collecting, simply because it's too easy.

Actually, a dyed-in-the-wool stamp collector is one who collects for enjoyment rather than for investment; he attains pleasure out of completing sets (series of stamps issued on a specific date) or countries. However, experts claim that, as with a lot of hobbies, intelligent application will pay off in hard money—if the owner ever wants to sell his collection.

An intelligent philatelist takes a small field and learns all he can about it. He not only will get greater enjoyment by operating this way; he will almost certainly break even and probably make a profit if he sells.

Fields vary from collecting stamps of many countries on a continent down to specializing in one stamp of one country. Today, with the vast number of stamps that exist, collecting from the whole world is regarded by most philatelists as more of a chore than a pleasure.

Probably the best way to choose a country is to go to a first-class dealer or auctioneer. He can quickly give you the scope of the stamp situation for any given country—the postal history, the rates, demand, and so on. If you are particularly interested in one country or one era—say the U. S. Civil War period—stick to that in your stamp collecting.

Most challenging to the philatelist is the collecting of (1) foreign issues; and (2) "classic" issues (these are stamps issued in about the first 50 years of philately, 1840 to 1890). U. S. stamps are the most widely collected, and cost more for a certain period or certain issue.

Whether your choice is foreign or U. S. stamps, your best source of supply is from dealers and auctions, which are listed in stamp magazines. You'll find that a good philatelist goes beyond the catalogue, since, with the exception of those listing U. S. stamps, catalogues do not include "proofs" (the trial impression made before final printing) or "essays" (designs made of a stamp not adopted) or "entires" (envelopes or folded letters with canceled stamps).

The value of a stamp is generally determined by its rarity and demand—and the popularity of a country creates the demand.

The normal rule of thumb: The older the stamp, the rarer it is. But

PERSONAL BUSINESS (Continued)

BUSINESS WEEK

OCT. 15, 1955

there are hundreds of exceptions. For example, one 1853 U. S. stamp today is worth only 20¢. That's because there were millions printed and it was in issue a long time.

On the other hand, a set of three Graf Zeppelin stamps, issued in 1930 with a face value of \$4.55, is now worth about \$100. The moral: Best way to check the rarity of a stamp is through a catalogue, which is a necessity for the collector.

How can you check on a rare stamp's authenticity? Best way is to submit it to one of several committees of experts such as the Expert Committee of the Philatelic Foundation, or the Friedl Committee. They will issue a certificate on the stamp's validity. Any reputable dealer selling a rare stamp will abide by the decision. If it is not what he claimed, he will cancel the sale and refund the money. Fee for a committee's opinion ranges up to \$15.

—●—

It's easy to get complacent about the possibility of fire destroying your home and family. Yet fire does still destroy \$1-billion worth of property each year, and is the major killer of children in home accidents.

The elementary rules are well-known—avoid careless smoking, don't misuse electricity, watch for defective heating equipment, handle flammable liquids with respect. But experts advise taking all or some of these additional steps:

- Install automatic sprinklers in the cellar.
- Use an extra-heavy door to cut off basement from first floor.
- Get and learn how to operate approved fire extinguishers. Ask your fire department what extinguishers you should have for different types of fires.

Hallowe'en brings a tremendous, if temporary, increase in the danger of home fires, because of special materials in use. One safeguard: Instead of candles in pumpkins, use flashlights with the reflector and lens removed. Stand flashlight on its base.

Fireproof costumes by dipping in a solution of 9 oz. of borax and 4 oz. of boric acid per gallon of water. And use only fireproof decorations.

—●—

Note for your calendar: Quarterly payment of Social Security tax for domestic servants is due Oct. 31.

—●—

If you're on a hospital board, you might consider the adoption of a "courtesy card." It does away with the unpleasantness of demanding a deposit on entrance and full payment of the bill on discharge.

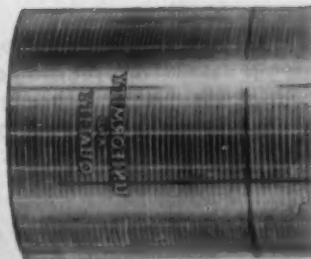
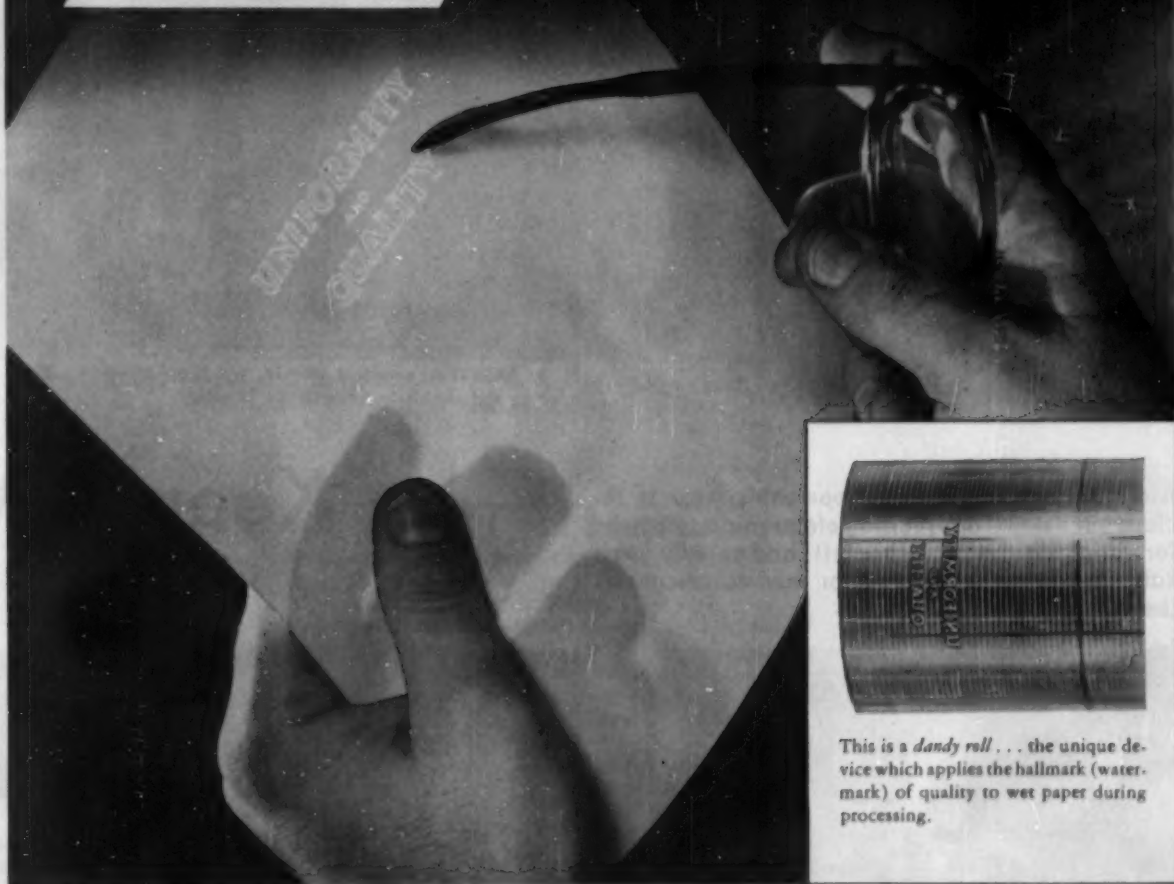
The system was started about a year ago at Arkansas Baptist Hospital in Little Rock, has since spread. Arkansas says no card-holder has yet reneged on his bill, which is payable in 30 days.

—●—

Manners and modes: Victorian furniture may be starting a comeback. Some manufacturers are recommending separate pieces as offsets in completely modern rooms. . . . The half-carat diamond for engagement rings is losing popularity; three-quarter carats and up are considered "right." . . . A dog deodorant now comes in an aerosol bomb.

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- Mineral Processing

RESEARCH

A group of scientists who worked at war-time military labs reconverted in 1945 as a private company. In pictures at right are the top men of Airborne Instruments Laboratory, Inc., of Mineola, N. Y.



H. R. SKIFTER, president of AIL, has been active in college teaching and electronics research for 30 years.

Airborne Instruments' development contracts include such items as precision electronic equipment for aerial navigation (below left) and equally intricate and sensitive devices for medical diagnosis (below right).

Keeping a





D. M. MILLER, a physicist, is an old associate of Skifter in research work.



J. N. DYER was chief engineer of the Byrd Antarctic Expedition in 1935.

War-time Team Intact

In the summer of 1945 there was great concern in research circles about the forthcoming breakup of the impressive laboratories that had been built up under Vannevar Bush's Office of Scientific Research & Development.

The scientists and engineers in these labs had produced radar equipment, gunfire controls, and many of the other wonders that had helped win the war. But with the coming of peace in Europe they were as impatient as any GI to get back to their own lives.

• **Lost Dream**—People who were concerned about the more distant future hated to see the staffs dissolve. They had hoped that groups of these scientists might serve as nuclei of private companies that would bless the civilian economy with the products and techniques of wartime research. But there turned out to be two obstacles for any collection of scientists to overcome in setting up such companies:

OSRD projects folded up much more quickly than anyone had believed they could. In the summer of 1945, most experts were talking in terms of "at least a year" before Japan would surrender. But when the atom bomb fell on Hiroshima on Aug. 6 and Japan surrendered on Aug. 14, the scientists' contracts were not renewed. In some cases, they had only two weeks to find other employment.

Scientists are not notably successful as administrators. And it takes a lot of knowhow to arrange financing, acquire facilities and equipment, develop sales prospects to get a new company organized and running.

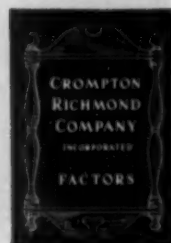
In most instances, the drawbacks were too great for the scientists to overcome. Most of them went back to the college campuses whence they had been recruited. Some went into well-established industrial labs, enticed by the promise of (by academic standards) princely incomes.

A few groups, however, made the grade in going into business for themselves.

1. War-Born Company

One of the least publicized but most prosperous of these groups is Airborne Instruments Laboratory, Inc., of Mineola, N. Y. The company has just celebrated its 10th birthday. In spite of the rush with which it was established, in spite of the lack of professional management talent, in spite of the dire predictions of the practical men of industry and banking—Airborne Instruments has grown to the point where it competes in advanced electronics areas with such well-established industrial giants as Bendix, General Electric, Raytheon, Sperry-Rand, and Westinghouse.

• **Founders**—The company was born in the last frantic days of August, 1945. A total of 140 scientists and engineers were recruited from the Airborne Instruments Laboratory at Columbia University (from which the company name was taken), the Radio Research Laboratory at Harvard, and the Radiation Laboratory at MIT. The Columbia group is best known for its work on the submarine detector known as MAD (magnetic airborne detector), which is now



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"... the market AIL expected to serve in 1945 is now opening..."

STORY starts on p. 186

widely used in aerial prospecting (BW—Feb. 20 '54, p. 102). The groups at MIT and Harvard worked on electronic countermeasures, primarily radar.

Thirty-nine of the original group are still with the company in key positions. Hector R. Skifter, director of the wartime AIL at Columbia, remains as president. D. M. Miller, one of Skifter's students at St. Olaf College in Minnesota, his partner in a prewar consulting business, and a member of the Columbia group, is vice-president in charge of the Engineering & Production Div. J. N. Dyer, who arrived with the Harvard contingent, is vice-president in charge of the Research & Engineering Div. Over the years, total employment has risen to 825 scientists, engineers, and technicians.

• **Sparkplugs**—Two men were largely responsible for giving the fledgling company its start: Skifter and Ralph S. Damon, then president of American Airlines (now president of Trans World Airlines).

Skifter bulldozed through red tape in Washington to acquire in two frenzied weeks (1) a lease on facilities in Mineola, N. Y., and (2) a working contract with the Navy. He also persuaded Damon to take on AIL as a subsidiary of American Airlines and to take substantially all of the original \$150,000 in stock.

• **Research Only**—From the beginning, most of the company's effort went into government research contracts. The civilian market that the founders expected to serve in 1945 is just beginning to ask for products in AIL's field—such things as automation devices for machine tools, advanced navigation aids for the airlines, electronic diagnosis equipment for medical research.

The company does very little manufacturing. It's basically a research outfit, specializing in electronics. On contracts, 50% of its time and money is often spent in working up data for a report, and the rest may go into one-of-a-kind hardware.

• **Sectionalized**—On each job, a team of scientists known as a section works like a separate company. The section makes the sales pitch, does the thinking and building, takes the credit or blame.

Skifter and his aides merely review their work periodically to see that the scientist teams don't commit the company beyond its means and to see that they are taking full advantage of the company's centralized services of pro-

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curement, janitorial maintenance, and paper work.

Each of the sections is headed by an engineer or scientist. They grew into their jobs. People were not hired because they were good administrators. The emphasis has always been on their technical ability. Section leaders receive no bonus on the completion of a project. Their satisfaction seems to come in the feeling of being a proprietor of a small business or scientific pride in seeing a project through successfully.

• **Atmosphere**—A tour through AIL's plants is pretty similar to a tour of any big industrial laboratory such as General Electric, or Minnesota Mining & Manufacturing, or Aluminum Co. of America. You wander along corridors with doors opening into rooms. The men you pass in the halls are always young. Most of them wear neckties and white shirts, quite a few keep their coats on. There's a strong communal feeling, everyone seems to know and respect everyone else. Conversations always have an enthusiastic sound.

While this community spirit is common to other big labs, the thing that makes it stand out at AIL is that it is the whole thing. There's no giant assembly line, or clanking rolling mill, or smoking furnace down the road to balance it. If ideas take hold, it's easy to see how they can be followed through. There's no giant company structure to be sold and no great plants to be retooled.

This sort of setup has been in operation since the beginning. If management by scientists has been a detriment, it certainly isn't apparent in either morale or productivity.

• **New Owners**—The only thing that has changed at AIL since 1945—aside from growth—is ownership. First, American Airlines turned over ownership to Aeronautical Radio, Inc., an electronic and radio service company operated jointly by 20 major U. S. airlines.

In 1949, Aeronautical Radio began to wonder what it was doing with a highbrow research outfit dangling from its coattails. The soul-searching had been prompted in part by Skifter, who reflected the interest of key personnel in acquiring part ownership of the company. But employees themselves did not have sufficient funds to swing the deal.

About this time, Laurence S. Rockefeller became enthusiastic about the potential of the unusual collection of engineers at AIL. He in turn interested Gen. Georges F. Doriot, president of American Research & Development Corp. By December, 1949, the company was refinanced and ownership split this way: 70,000 shares to Laurence Rockefeller, David Rockefeller, and associates; 30,000 shares to American

G-E PROGRESS REPORT

on electron
research

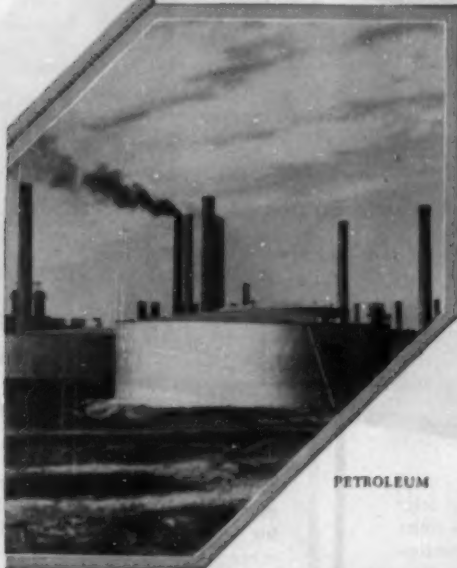


LEATHER AND TEXTILES



DRUGS AND SURGICAL PRODUCTS

Irradiation moves into *new* fields



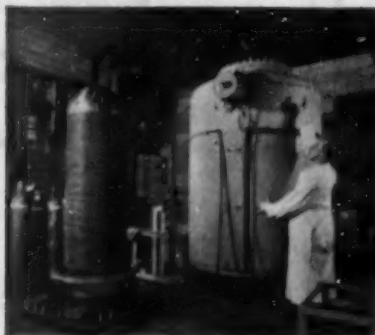
PETROLEUM

INVESTIGATION of high-energy irradiation for sterilization of foods is exciting great interest. It has been hailed as research that could result in the "ideal food preservation method."

From the start, G.E. has invited industry and others to participate in further study. Recent developments indicate the broadening range of this work.

For example, tests have indicated that shoes can be sterilized by high-energy irradiation without detrimental effects to the leather. Also, studies are being made to polymerize silicones in textiles. Gasoline is being tested with a view to polymerizing materials that produce "gum" in storage.

These are just a few of the research projects under way. General Electric offers you an easy plan for your own investigation. Preliminary tests will be conducted at the G-E Laboratory. Should these tests show promise, you can purchase equipment for use in your own plant, or you can rent it under the G-E MAXISERV-ICE® rental plan. For further details, call your G-E x-ray representative. Or write for technical literature to X-Ray Department, General Electric Company, Milwaukee 1, Wisconsin, Rm. AO-104.



New G-E 2-mev electron beam generator (shown in assembly) joins the 1-mev generator (right) to broaden your research range.

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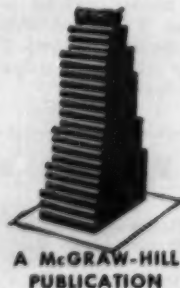
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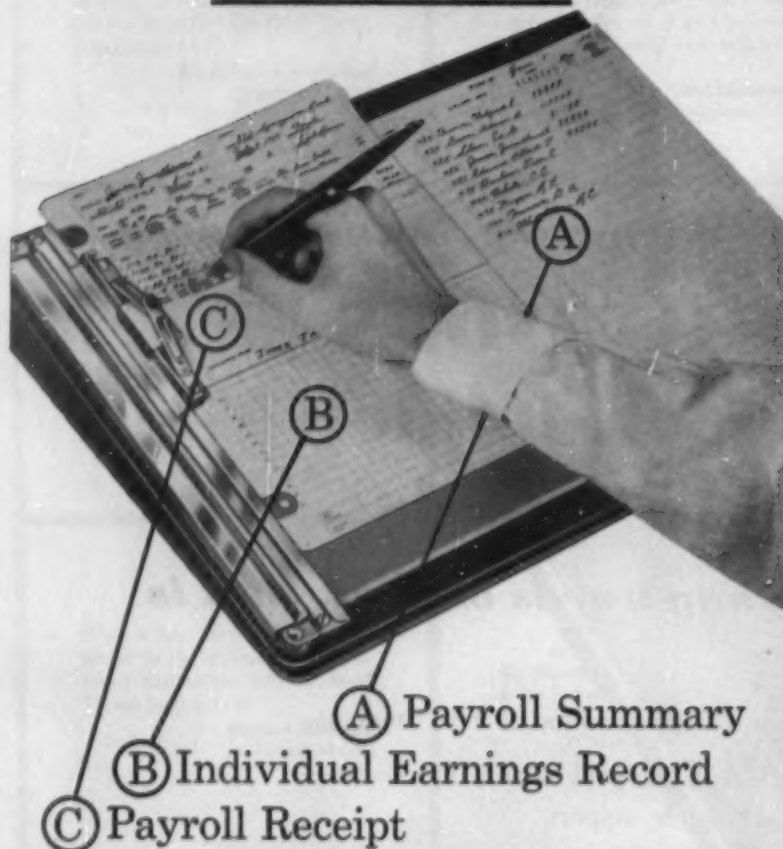
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Research; 61,000 shares to 103 employees; 27,250 shares to the general public.

• **How Solid?**—The Rockefellers and AR&D, the major investors in AIL, are extremely bullish about the company's future. However, both of these groups have sometimes gone into ventures because they felt that something of the sort should be done. They approach these things sometimes in terms of the good of the community as well as in terms of speculative high pay-offs. The question therefore arises, why are they interested? The company's net income has not been consistently spectacular; it's erratic jumps show \$76,000 in 1951, \$19,000 in 1952, \$270,000 last year.

The feeling among outside investors appears to be that with the new emphasis AIL is placing on manufacturing and with its many-pointed invasion of civilian fields, the company is taking the first steps toward becoming a new industrial giant. In time, the current company with its impressive array of engineers and scientists, may be merely the research arm of a much larger enterprise.

II. Civilian Work

Skifter is now making a conscious effort to devote a larger portion of AIL's effort to civilian work. He doesn't expect—and certainly doesn't want—to lose his military contracts. But he thinks the future lies in the civilian field, and he would like to see the job split nearer to 50-50.

Civilian work has been done on a rather hit-or-miss basis. Projects were born when somebody on the staff happened to bump into somebody at a scientific get-together who was looking for the type of thing AIL could do. There was plenty of government business to keep everyone busy, but the company got little publicity out of it, because most of the work was done in security areas.

• **Air Electronics**—Over the years, the jobs that paid the bills mostly involved air navigation and radar tracking. For a while soon after the war, AIL was the country's leading developer of aircraft antennas. But, as Skifter puts it, "as other people caught up with us, we gradually got out of the business. We specialize in things that tend to be expensive and require a lot of skill in putting together," he says. When products reach the assembly-line stage, AIL realizes it's no competition for the giants of the electrical industry.

After antennas came the MTI (moving target indicator). This is an accessory for radar that in effect removes all the local echoes and registers only moving objects on the radar screen.

Though the technique for produc-



Crane Arm



Hydraulic or
Mechanical Scoop



Side Shifter



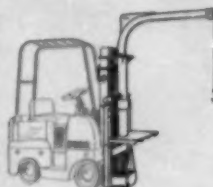
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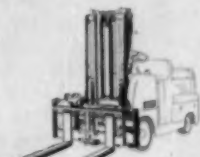
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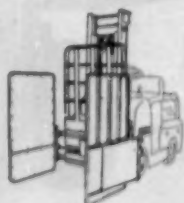
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WEEK'S own classified advertising section

clues

ing such a device was known at the
end of the war, it was very complex
to build. Every important radar in-
stallation uses it today. While AIL
built all the early ones, Bendix and
Westinghouse have turned out far
greater numbers.

• **Automation**—A great many other
complex pieces of equipment have
come out of AIL. You get some idea
of the volume when Skifter says "we
average 200 separate contracts in the
shop all the time—individually, they
run anywhere from \$10,000 up to \$3-
million."

A lot of effort is currently going
into automation. Skifter feels that the
trend in auto making is toward closer
tolerances, forcing Detroit to think of
automatic quality control as the way
to eliminate the element of human
judgment.

While he has no immediate solu-
tion to offer, Skifter mentions the play
in power steering and the noise in
automatic transmissions as defects that
mechanical test equipment might cure.
These units are now passed or re-
jected by human judgment.

• **Electronic Gauges**—Gauging is an
area that has intrigued Airborne In-
struments. In this field, electronics
faces the competition of the air gauge
—a strong competitor because it's a
simple device, reliable, easy to use.

Response time is the only real weak
spot of air gauges. It takes one to
three seconds to get a reliable reading.
Then if you want to do something
with the reading in the way of feed-
back control, you have to convert to
electronics anyway.

AIL's pitch is: Why get involved
with air at all, since you're eventually
going to use electronics in feedback
controls? Along this line, it has de-
veloped an automatic gear gauge and
hobbing machine control that fits into
the production line. It's a completely
automatic device that sorts gears ac-
cording to production tolerance limits
and allows for feedback control of the
hobbing machine.

• **Medical Research**—In the past 10
years, AIL has never had to beat the
bushes for business. In only one in-
stance was there any special effort put
into crashing a new field. This field is
medicine. "We were determined to
get into medicine," says Skifter.
"Scientists have spent so much time
trying to find ways to kill people that
it's time we tried to find ways to save
lives."

Electronics, he feels, has a tremend-
ous future in medical work. It may be
useful in therapy, too, but he thinks
the most spectacular gains can be
made in diagnosis. If doctors know
early enough what's wrong, they can
already do wonders in therapy. **END**

Man-Made Moon

... is progressing. Pen-
tagon says actual work has
started on little satellites to
circle the earth.

Last week, Defense Dept. wiped
away a lot of the speculation surround-
ing the man-made, earth-circling satel-
lite project, first announced by the
White House on July 29 (BW-Aug. 6
'55, p. 31). Pentagon spokesmen con-
firmed rumors that work had actually
begun on this project to hurl an object
the size of a basketball into outer space.

• **Military Auspices:** Here's what was
said:

• The undertaking has been as-
signed the name "Project Vanguard."
Although it is designed entirely for
scientific purposes and detailed informa-
tion on the satellite proper will be
shared with scientists of other nations
(including the U.S.S.R.) participating
in the Geophysical Year, Project Van-
guard will be carried out jointly by the
Army, Navy, and Air Force. The armed
services' considerable experience in de-
veloping and launching guided missiles
gives them the inside track.

• The Navy has been designated
executive agent. The Chief of Naval
Research, Rear Adm. F. R. Furth, will
exercise general supervision and Dr.
John P. Hagen of the Naval Research
Laboratory will be the director.

• Glenn L. Martin Co. of Balti-
more, maker of the Navy's spectacularly
successful Viking rocket, has been given
a \$2,053,000 prime contract for con-
struction of the rocket launching
vehicle. General Electric Co. has con-
tracted to furnish the rocket motor for
the first stage of what will be a three-
stage propulsion system to get the
satellite into outer space. "Different
industrial sources" will supply other
important portions of the launching
apparatus.

• Not one, but 10 satellites will
be launched during the Geophysical
Year. Launchings will be spaced out
over several weeks to provide man's
first continuous study of the virtually
unexplored upper atmosphere. Each
Vanguard is expected to hold its orbit
for several days before friction with the
rarefied air at 200 miles slows it down
and causes it to settle toward the denser
lower layers of air where it will dis-
integrate like a falling star.

The Pentagon had nothing further
to say on the exact size and shape of
the satellite. This has not yet been de-
termined, though it will have to be large
enough to carry some instruments and
to be trackable from the surface. From



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Industrial—Sales Mgr. Aggressive man with proven successful sales-mgt. record with an AAA co. Excellent tech. background, 25 years old, college degree—seeks position of responsibility and opportunity in sales management—prefer limited travel, present salary \$12,500. FW-7960, Business Week.

Share A New York Representative? Business man (R.S. L.L.B.), with a N.Y. office, will serve as your agent or liaison while serving 3 or 5 other organizations. FW-7810, Business Week.

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the point of view of the fuel needed, the smaller the satellite the better it is.

• **Going Up**—The announcements did tell something about how the scientists expect to reach great heights with a three-stage rocket. The first will lift the system vertically and when fuel is exhausted, it will drop away. A second rocket will take over at this point to continue the satellite upward, but on a deflected course until its fuel runs out. A third rocket, carrying the satellite proper, will accelerate what's left to a top speed of about 18,000 mph.

The satellite's orbit around the earth will be elliptical. At its nearest point it may be about 200 miles up; at its farthest extreme, it may hit 800 miles up. At these speeds and heights, the satellite would take about 90 minutes to circle the earth.

RESEARCH BRIEFS

Research Unlimited: Dr. Raymond Ewell of National Science Foundation has been trying for years to find correlations between research spending and national productivity. He recently came to the provocative conclusion that over the course of 25 years, society gets back \$2,500 to \$5,000 for every \$100 spent on research and development. A publication of the American Assn. for the Advancement of Science, commenting on these findings asks its readers to "imagine the prospectus that could be written on the basis of Ewell's calculations if Research & Development Unlimited were listed on the New York Stock Exchange."

Public Health Service, worried by "increasing evidence that various types of air pollution may constitute a serious, widespread danger to human health," has announced 10 grants totaling \$295,367 for lab work on pollutants. Aims of the program: (1) to determine how serious the danger is, and (2) to find out in just what way the human body may be damaged by different air pollutants in different concentrations.

Supersonic wind tunnel at University of California's Engineering Field Station in Richmond is said to be the world's biggest. It will be used by engineering scientists, physicists, and technicians to simulate the behavior of objects traveling more than six times the speed of sound, 20 to 80 miles above the earth.

Expansion: Ford Motor Co. has announced plans for a \$50-million expansion of its research and engineering center in Dearborn, Mich. Gas turbine engines for passenger cars probably are a big factor behind the move.

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Easing Up on the Credit Brakes

The past three weeks have produced several subtle but highly important changes in the economic picture (page 25). President Eisenhower's heart attack has forced businessmen in general to do some sober thinking about the nature of the current boom and the prospects for the economic future.

On the whole, this is healthy. The threat of inflation—which was very real only three weeks ago—has abruptly moved into the background. In the thoughtful reappraisal that followed the bad news from Denver, a lot of people decided that speculation in inventories, commodities, and common stocks was not after all such a sure thing. This dash of cold water was enough to take the feverishness out of the boom. Confidence remains, but it is a realistic confidence based on a hard look at business and not on the easy assumption that things cannot possibly go any way but up.

This new mood will make life easier for the various government officials who have been trying to keep the business boom from getting out of hand. But it may also force them to do a quick remodeling job on the controls they set up to prevent a speculative spree. If the spree is no longer a threat, then the controls that were appropriate three weeks ago may be outdated now.

The Federal Reserve, in particular, will be watching the new situation with a questioning eye. For the past three years, the Fed has tailored its monetary and credit controls to the business situation. By moving quickly and in small steps, it has developed a credit policy that is flexible and effective, both on the rises and on the declines. The essence of this policy is a willingness to turn around quickly, a refusal to nail any particular banner to the mast and keep it there.

Thus, in September, 1954, when business was picking up rapidly, the Fed switched from a policy of "active ease" to a neutral position that it described simply as "ease." Last April, it moved from "ease" to "mild restraint." And since April, it has allowed the restraint to become less and less mild.

Today, money is tight. It is a lot tighter, in fact, than the level of interest rates suggests—because it has become harder and harder to borrow money at any rate. We have not yet reached the situation that prevailed for a few days in 1953, when fully qualified borrowers simply could not get loans. But we have reached the point where qualified borrowers are feeling an uncomfortable pinch. And in some areas—mortgage lending, for instance—the pinch is severe.

This policy of restraint plainly made sense three weeks ago when the monetary authorities were trying to damp down an excess of confidence. But the Fed may very well decide that it is an inappropriately Spartan measure now.

As this happens, businessmen will have to know what it means if they are to make the most of it. A shift to

a neutral credit policy won't be intended as an invitation to speculators. It won't be an attempt to run up prices. And it most certainly won't be a guarantee that the Fed is prepared to underwrite inflation rather than make the hard decisions necessary to control a boom.

What it will be is a realistic recognition of the new shading that the business picture has taken on, a demonstration of the fact that a flexible credit policy, by definition, has to keep changing.

The Cost of Distribution

The high cost of distribution is a little like sin. Everyone is against it. But in the case of distribution, at least, what people mean when they talk about high costs is not always precisely clear.

In many instances, of course, it is perfectly obvious. Economist David Kaplan, president of the Economics of Distribution Foundation, Inc., cited a good example in a speech recently (BW—Oct. 8 '55, p. 54). Independent bakers pay 3¢ a loaf to get their bread delivered to grocery stores; it costs food chains only $\frac{1}{16}$ of a cent. Similar glaring cases can be cited by almost anyone.

But in a larger sense, any discussion of the "high cost of distribution" raises a conceptual problem. What do you mean when you say "high"? Compared with what?

The usual practice is to compare the cost of distribution with that of the raw materials and production. Viewed this way—and it alarms many people—distribution costs account for some 50% of the final price of manufactured goods. Wow; yet, the ratio has tended to float up in recent years.

Between 1929 and 1954, manufacturing employment in the nation rose 60% while employment in wholesaling and retailing rose 82%.

Superficially at least, the record for distribution looks inefficient and sloppy.

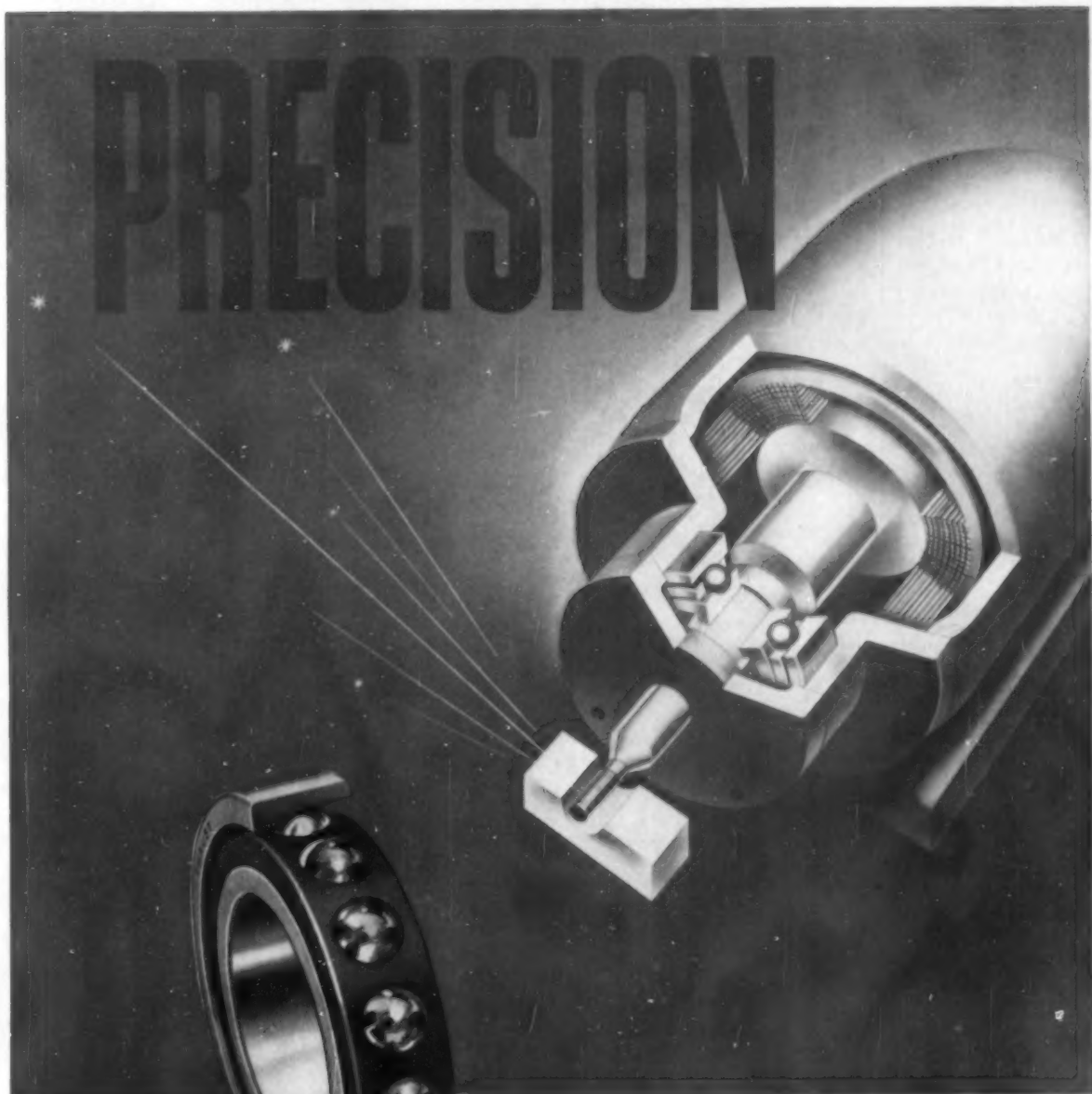
At this point one remark of Kaplan's is worth quoting: "The very efficiency of production has added burdens to the distributive function that have been costly, thrusting upon it much broader and more varied functions, including the creating of larger consumer demands and the introduction of many new products."

Here is the key to the problem. We live in an age of what one observer has called "expensive distribution"—the duplication of goods and services; the multiplying many times over of models, colors, sizes, and brands; the constant addition of new products.

The consumer, it so happens, wants it that way in our high level economy, and he can pay for it.

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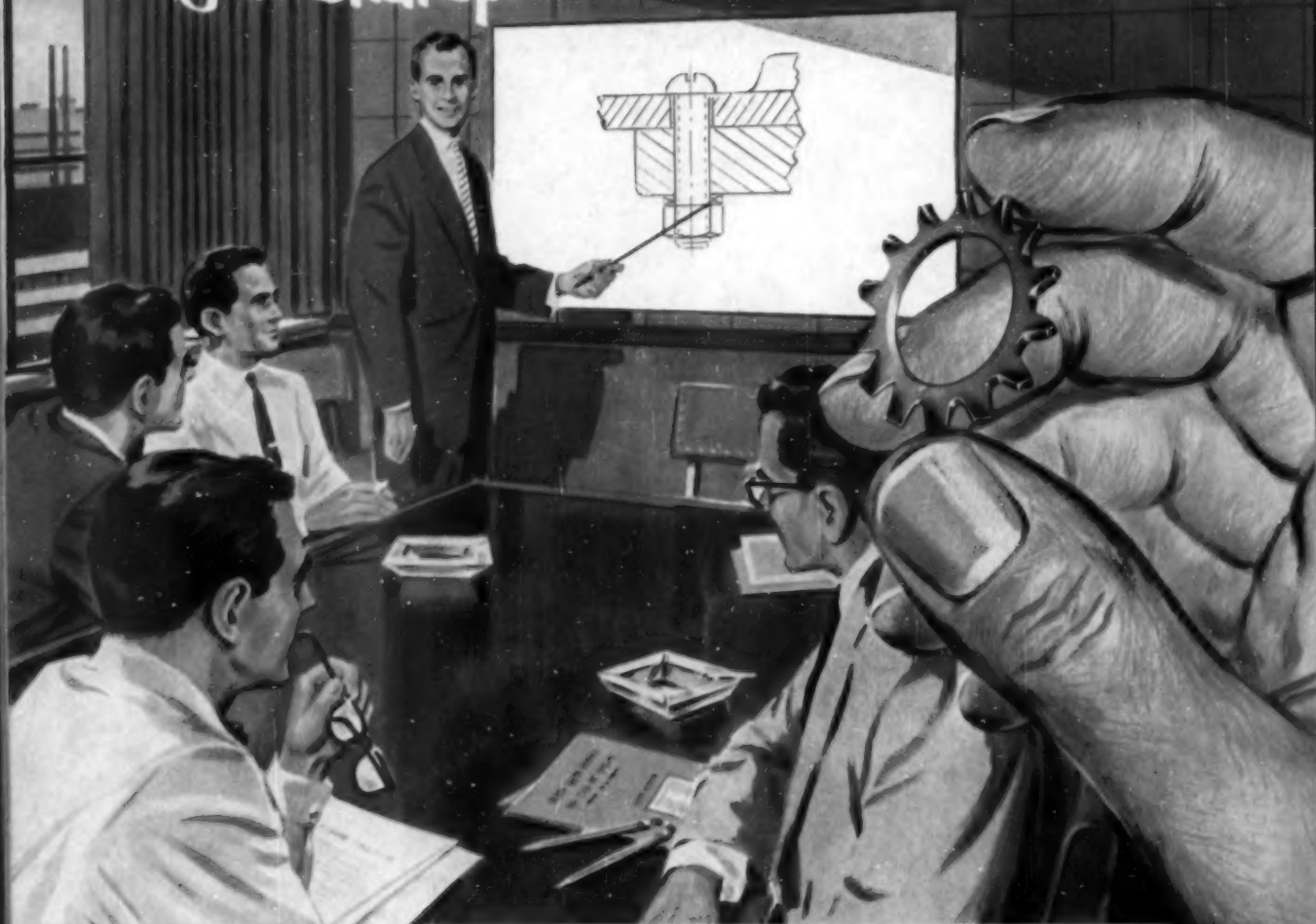
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